Teachers' strategies in providing opportunities for second language development

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Abstract

The study forms part of a large-scale longitudinal study on the effectiveness of bilingual education in the Netherlands. One part of the project investigated pupils' English language proficiency, by using data gathered from language proficiency tests. This study is the second part of the project and takes as the data for investigation the lessons given to the pupils tested for language proficiency. The lessons were filmed and provided the data on teachers' discourse in class, which is the primary data source for this study. The lessons were from three instructional contexts: subject classes in the bilingual streams, English support classes for pupils in these bilingual classes, and mainstream English language classes.

The study presents the findings on the analyses of classroom observations of teachers' discourse occurring during the lessons. The objective was to analyse the teachers' use of didactical strategies conducive to language acquisition and which provided learners with opportunities for language development. The data relates to five areas of classroom discourse; the teachers' use of Dutch (L1) and English (L2) during presentation of content, the use of L1 and L2 in interactional discourse, modifications of teacher-input, the use of question forms in interaction and the types of corrective feedback given to learners. The study provides an analysis of the occurrences of didactical strategies relevant to these five areas of classroom discourse, compares the three instructional contexts for any variances and presents conclusions about the discrepancies in the amount and frequency of strategies. An analysis examining whether a direct link exists between pupils' language proficiency and the observed teacher behaviour produces no conclusive result.

The results of the analyses on classroom discourse show that the instructional context is a factor in the variation in the amount of Dutch and English used by the teacher and in other didactical strategies used by teachers. Of the three groups of teachers, those in the English support classes show the highest and most consistent use of English in the lessons. Subject teachers in the bilingual streams have a high use of L2, with some switches to L1 when presenting subject-specific lexis. Differences in the number and types of modifications and questions forms are found to be context-dependent, with English support teachers revealing a higher number of modifications and divergent questions than the teachers in the other two groups. A range of didactical strategies providing opportunities for language development occur in all three contexts, and the type and number of corrective feedback strategies are found to be dependent on the instructional context.

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Chapter 1 Introduction to the study

The study forms part of a larger project on the effectiveness of bilingual education in Dutch secondary schools with particular relevance to learners' language proficiency in English. The project has been carried out under the auspices of the European Platform and the University of Groningen, and addresses two questions. The first is to establish the difference between levels of English language proficiency in pupils in bilingual schools and those following mainstream English programmes. The second study considers whether second language acquisition in a bilingual context proceeds differently than in a mainstream foreign language instructional context. Emanating from these two research questions, two studies have been developed. The first study investigates pupils' language proficiency in terms of the knowledge of vocabulary and their proficiency in writing skills. The results of this longitudinal study have been presented in a report by Verspoor, M.H., Schuitemaker-King J., Van Rein, E.M.J., De Bot, K., & Edelenbos, P. (2010) which presented the conclusion that in both areas of language, pupils following the bilingual programme show a higher proficiency in language tests than pupils following mainstream English programmes, and generally achieve a B2 level of the Common European Framework of Reference in writing skills. This dissertation is the second study in the project and investigates how teachers' classroom discourse operates in lessons and examines its efficacy in elicitative spoken interaction with learners in bilingual classes and other instructional contexts

It is to be expected that in bilingual education, with a combination of teaching content and language, language learning will not be dealt with in the same way as in a foreign language learning context, such as a mainstream language class. Pedagogical objectives differ: in a bilingual context the language structures and lexis will be presented as they occur in the content texts and will not necessarily be graded according to perceived complexity of syntax or level of vocabulary. A mainstream language class is generally focused on presenting structures and vocabulary in a more sequenced and restricted fashion, with the main teaching objective being the acquisition of the language structures and use of lexis. Although it can be assumed that language acquisition in a bilingual context follows a different path than in the foreign language learning context, the common denominator for both contexts is the learning of a second language. Teachers in both instructional contexts are dealing with the process of language acquisition. This requires them to be aware of how best they can foster this learning. One aspect salient to effective language learning is the opportunities for pupils to practise structures and lexis in a meaningful context. Opportunities provided by the teacher during the lessons are investigated in this study, and the objective is to examine the frequency with which strategies considered to be conducive to language development occur during the teachers' discourse and how they are employed to produce pupil output.

The areas of classroom talk that are the subject of this study are firstly, talk during lesson phases of content presentation and secondly, language in dialogic interaction with learners. The data collected for this study relates to these aspects of Classroom Discourse (CD) occurring in three instructional contexts and is analysed for the number of occurrences of strategies conducive to language learning and used in these two areas of talk. The data comes from bilingual and mainstream contexts and covers three types of lessons given in secondary schools in the Netherlands: subject classes in bilingual

schools, the English support lessons in those schools and mainstream English language classes. The teachers' talk in these three settings is the primary source of information about the procedures in classroom discourse and the strategies in the teachers' discourse that are relevant to learners' opportunities for language development.

The objectives of this study are to collect data on the didactical strategies used by teachers in their classroom discourse, to examine how frequently the strategies occur, to identify the linguistic context in which they occur and to draw conclusions about their function and use. The study identifies the employment of strategies considered to be conducive to language acquisition and considers patterns of classroom discourse that could scaffold and support language use. The data is analysed for five aspects of language use by the teachers. The first set of data is on the use of the L1 and L2 in presenting content, the second is on the use of L1 and L2 in interactional dialogic talk with learners and the third aspect considered is the presentation of comprehensible input through modifications. Eliciting of output through question forms and reacting to learners' output by giving corrective feedback complete the five areas of language investigated.

The analysis was carried out in order to identify didactical strategies in classroom discourse and to draw up a profile of current practice in the field of Content and Language Integrated Learning (CLIL) in bilingual settings and to compare this with English language teaching. The research questions are:

1. What didactical and linguistic strategies do teachers use during classroom discourse in providing opportunities for second language development?

2. Does instructional context affect the type and frequency of these strategies?

As this dissertation forms part of a larger-scale effectiveness study, it was of interest to consider whether a causal relationship could be shown between the results of the analyses of teachers' discourse and the results on learners' proficiency in English. The analyses performed to examine this aspect are included in chapter 10 of this current study.

Chapter 2 presents the literature on CLIL, the methodology generally associated with bilingual education. Chapter 3 provides a description of classroom discourse with a review of didactical strategies considered to be salient in promoting language acquisition. These include the types of questions and the types of corrective feedback in teacher talk. This chapter also gives an overview of observation protocols (OPs) used in the analysis of CD and provides the theoretical basis for the OP developed specifically for use in this study. Chapter 4 describes the method applied in the study, with a description of the teacher participants, details of the OP and the indicators selected, and a description of the application of the OP to the data collected from observed lessons. Chapter 5 presents the results of the analyses of the data on the use of L1 and L2 in classroom discourse. Chapter 6 details the results of observations on modifications of teachers' talk during the presentation of comprehensible input. Chapter 7 presents a breakdown of the question forms used by teachers in the three contexts in eliciting learner output. Chapter 8 presents the results of the types of feedback given by the teachers in reacting to learners' output and compares the frequency with which they are observed in the three contexts. Chapter 9 presents an interpretation of the findings relevant to the five areas of language and draws conclusions to enable answers to be given to the research questions one and two. Chapter 10 is adapted, with permission, from work by Verspoor et al. (2010) with the

statistics performed by Xiaoyan Xu. It presents data on pupils' proficiency and examines whether a correlation exists between the classroom discourse and the pupils' language proficiency. The dissertation concludes with Chapter 11, a summary of the findings with relevance to the research questions.

Chapter 2 Review of the Literature on Bilingual Education and Content and Language Integrated Learning (CLIL)

2.1 Introduction

In the Netherlands the term Tweetalig onderwijs (TTO) is used to describe schools and programmes that include content teaching in an additional language. It can be translated into English as 'education in two languages', but the translation 'Bilingual Education' is generally applied. The word 'bilingual' is not used in reference to the pupils' language proficiency but in reference to the type of educational system. There is no claim or even intention that native-speaker proficiency in the pupils is to be the aim of the programme. The objective is to provide a challenging educational context including the acquisition of a second language, with a view to giving pupils additional skills and qualifications for future use.

Over the past twenty years, the Netherlands has witnessed a consistent and rapid increase in the number of secondary schools opting to include an English bilingual stream in their curriculum. Beginning with a single school in 1989 and rising to 101 at the time of writing, the number of schools offering this type of programme is expected to increase further in the future. Another development is the diversification in the type of school offering bilingual education. Initially, bilingual education was considered suitable for pupils at a higher academic level, able to cope with the perceived difficulties of learning content through the medium of a foreign language, and not for pupils who were following a vocational and practical education. But in 2009 nine vocational secondary schools in the Netherlands decided that the bilingual programme could be one way of motivating pupils and enhancing the total curriculum package on offer. When referring to bilingual programmes in Dutch schools, this study focuses on curricula where approximately 50% of the subjects are taught in English and 50% in Dutch.

The idea of teaching content through a language other than the learners' first language has been circulating in pedagogical circles for centuries, and over the last few decades various terms for this pedagogical context have been put forward. Two terms used in pedagogical contexts for content teaching through a language other than the mother tongue of the learners are 'immersion education' and 'bilingual education'. In addition to these, Lyster (2007:6) lists various terms used in different studies and descriptions, namely 'sustained content teaching' (Pally 2000), 'enriched education' (Cloud, Genesee and Hamayan 2000) and 'content based instruction' (Musumeci 1996). Whereas all these terms refer to the same pedagogical model for teaching content subjects through the medium of an L2, there may be variances in the participants in the programme, the educational context, the amount of time spent on the programme and the outcome objectives. In all contexts the core principle is the teaching of content in a language other than the learners' L1.

This chapter presents a literature review on various forms of bilingual education and presents a description of the methodology of Content and Language Integrated Learning (CLIL), the methodology generally associated with bilingual education. A particular focus of the review is the aspect of language acquisition within the framework of CLIL.

2.2 CLIL methodology

The teaching of content in another language requires another set of didactics than teaching in the home language of learners, and the didactical approach currently dominating the literature on bilingual education is Content and Language Integrated Learning (CLIL). The term CLIL has emerged over the last couple of decades and seems to be the accepted term in use in Europe (Mehisto, Marsh & Frigols 2008, Mariotti 2006 and Hajer (2000). It has aroused a lively discussion about the principles of teaching through the medium of a second language, which go beyond the principle of combining language and content. These principles can be seen in many of the writings from current proponents and advocates of CLIL, who have written widely about its aims and objectives, and have made various suggestions and recommendations to inform practitioners concerned with classroom methodology (Mehisto et al. 2011, de Bot 2006, Coyle, Hood & Marsh 2010). One notion expressed by some writers is the idea that CLIL is not only a form of education in the narrower sense of relevance to classroom practice, but that it is a new form of education appropriate for the era in which we live and that it is specifically relevant to contemporary educational needs for flexibility and innovation. This idea is illustrated by Coyle et al. (2010:10) who make a connection between the impact of recent technological advances on the mindset of pupils currently in schools, and CLIL methodology. They suggest that CLIL methodology will provide a more relevant pedagogic model for the times we live in and that it should reflect current social and educational changes. Coyle et al. are certainly clear that CLIL is not the same as past methodologies for teaching content through the medium of another language (2010:6). Coyle emphasizes its separate identity as a new pedagogy:

> What separates CLIL from some established approaches such as content-based language learning, or forms of bilingual education is the planned pedagogic integration of contextualized content, cognition, communication and culture into teaching and learning practice.
>
> Coyle (2002:45)

The notion of interconnection and integration in educational contexts is raised by Mehisto et al. as a world-wide issue in education and one that has led to an increasing demand for students to expand their skills base (2008: 10). This expansion would include foreign or second language skills. The authors suggest that mobility and flexibility in educational opportunities has led to a corresponding demand for a different kind of education, and they suggest that it is here that CLIL programmes can play a vital role in equipping learners with additional skills, thus enhancing their career and professional opportunities.

The above points of view clearly give us a new perspective on education, indicating that CLIL, with its new set of educational principles, can and should do more than previous similar educational programmes. The discussion of how to translate these principles of CLIL to learning and to classroom practice leads us further into the methodological principles that will guide the teachers' behaviour in the classroom. For transformation of theory to practice, Coyle et al. (2010) give us a template of a CLIL toolkit for teachers. The 4Cs of contextualized content, cognition, communication and culture (Coyle et al. 2010:54) are taken as a framework in which to place classroom practice. The 'contextualized content' is the core of the learning process with the 'communication' referring to the vehicular language of the classroom. 'Cognition' refers to the classroom practice of how to present content and how to devise activities which are cognitively

challenging and appropriate. The final C of 'culture' refers to the learner's awareness of self and others, with the idea that learners thereby develop an understanding of multicultural contexts. The authors acknowledge the challenge to the school and the teachers of how to sufficiently include this in the curriculum, but maintain that this aspect is one that distinguishes CLIL from other programmes. All of these concepts that proponents of CLIL are presenting give a broad and global view of how CLIL programmes can operate. In the daily practice of applying these principles lies the concept of combining language and content in the lessons and the mediation of concept through an additional language. It is the teachers' language and the way language is used to elicit and react to pupils' language that is of interest for this study.

Although the term CLIL has become standard, discussion is still continuing as to what should be included in a complete and comprehensive description of good and effective CLIL teaching (Lyster 2007, Mehisto 2011.) The qualities CLIL teachers should have and the criteria they should meet in their teaching is a subject currently under discussion in Europe (European Platform). One of the cornerstones in CLIL methodology and reflected in the very term is the combination and balance of language and content within the methodology. The literature seems to take it as given that content and language are of equal importance. Mehisto et al. talk of the three pillars of CLIL methodology as content, language and learning skills, and assign equal saliency to all of them (2008:12). The European Platform, the Hague-based organization, in its criteria for bilingual education lists as one of the skills required by CLIL teachers the ability to employ didactical strategies conducive to stimulating language output from pupils. It is advised and suggested that content teachers take this into account in their classroom behaviour and practice, that they pay just as much attention to pupils' language proficiency as to content knowledge and that they realise that their content lessons are a source of language input that can be a relevant factor in the progress of pupils' L2.

In addressing the question of the combination of content and language, Lyster (2007) proposes a counterbalanced approach to teaching content through a second language and suggests explicitly integrating form-focused instruction into content-based instruction. He refers to 'instructional practices at the interface of language and content' (2007:25) and, by doing so, explicitly defines the CLIL classroom environment as one with specific instructional strategies, amongst which is a strong focus on second language development. Recognition of this discussion can be seen in the work by de Graaff, Koopman and Westhoff (2007:12) with a call for CLIL teachers to implement more language-pedagogical approaches and, equally important, for mainstream language teachers to adopt effective CLIL teaching strategies.

2.3 Teacher talk in CLIL

It has been proposed that quantity of language input alone is not sufficient to promote language acquisition (Lyster 2007:63) and that an awareness of how teachers' language can assist comprehensibility of input is vital in developing pupils' second language acquisition. If we rely solely on the quantity of input to improve learners' language proficiency, the balance of content and language may not be the optimal one. In considering the quality of input Musumeci supports the view that quantity of input needs to be supported by comprehensibility of input (1996:287). A factor in achieving comprehensibility is the quality of interactional language between teacher and learner.

If this interactional language is a significant feature, then we may be ignoring a large part of SLA theory if we do not take this into account when considering classroom discourse in CLIL classes. If, as posited by Norris and Ortega (2001:202), a more specific focus on language form in lexis, phonology and morphosyntax leads to comprehensibility and progress in language proficiency, this should duly be reflected in a proposed CLIL methodology. Mainly, this comes down to the question of whether CLIL methodology can be content-driven or language-driven. The issue is therefore how much of content teachers' classroom discourse should be concerned with explicit focus on the learners' language accuracy or language development.

The literature certainly seems to indicate that a limited application of language-oriented strategies is found in classroom discourse in CLIL classrooms and proposes more focused attention on the role of teacher input and the mediation of content. In reporting on CLIL classes in the Netherlands, Huibregtse finds that the frequent use of recasts does not necessarily lead to reflection by the learners on their linguistic errors and suggests that this is an area that could be improved by a more form-focused approach (2001:215). Lyster proposes a more reactive form-focused approach in immersion classes as a way to systematically promote language acquisition (2007:57). Hajer (2000) considers that the involvement of CLIL teachers in language development is vital and suggests that CLIL teachers' awareness of their role in pupils' language development is crucial to the success of any CLIL programme.

> If content-area teaching is to be utilized as a breeding ground for L2 development, a better understanding of the role of teachers in creating interactive L2 promoting conditions is needed.
>
> Hajer 2000:267

One manifestation of classroom practice is the teacher talk that is the medium for instruction. Spoken discourse in instructional contexts provides the channel for presentation of content and is the primary tool for teachers' interaction with learners. In contexts using a second language for instruction, teacher-talk has an additional role of providing syntactical models of the target language and demonstrating lexical use in meaningful contexts. This exposure to input is important in learners' second language development, and teachers' linguistic strategies are a salient factor in learners' progress in second language acquisition (Krashen 1982). Not only is exposure valuable to learners, but the reaction of the teacher to learner utterances will also contribute to second language development. The way in which corrective feedback is given and its role in assisting learners are factors to be taken into account when we attempt to describe effective instruction in second language contexts. Teachers' discourse is a source of linguistic input for learners to measure their own utterances against, and it is naturally a medium for transmission of knowledge. This dual aspect of subject knowledge and linguistic input is of particular interest in bilingual classes, where the target or second language (L2) is used for teaching content and is also one of the sources of learning material. Strategies and instructional options adopted by teachers enable these two aspects to function in one context to provide material for learners.

2.4 Summary

CLIL methodology has many advocates who present an approach to learning with a clear set of pedagogical objectives, including the acquisition of a second language in a meaningful context of content learning in which content and language are deemed to be of equal importance. The didactics of CLIL methodology suggested by various writers (Lyster 2007, Coyle et al. 2010) lays down the principles of combining the two. This position is adopted by supporters and advocates of CLIL methodology and seems to be accepted as the current wisdom on the role of language in CLIL programmes. It is therefore of interest to analyse classroom practice in order to identify the occurrences and outcomes of the types of strategies compatible with the recommendations and suggestions posited in the literature on the combination of content and language learning. This analysis will include the use of certain didactical strategies used by the teacher and considered conducive to language learning.

Chapter 3 Review of the Literature on Classroom Discourse and on Observation Protocols

3.1 Introduction

This chapter presents a literature review on classroom discourse and presents an overview of Observation Protocols that have been developed for use in classroom-based research relevant to teachers' actions and their interaction with learners. The chapter details findings on the common features and characteristics of teachers' classroom discourse in general, from pedagogical perspectives, drawing on previous studies on authentic discourse outside the classroom context and also on classroom-based research. The latter has revealed that much classroom discourse is paradigmatic and predictable, with consistent patterns occurring during interactional talk, as demonstrated by most teachers in most instructional contexts, including CLIL and second/foreign language contexts. This chapter includes a section on archetypal patterns that are characterized in the question forms used when eliciting output, and in the types of corrective feedback given to learners. It is especially during these two types of interactional exchanges that learners can be given opportunities for practice and opportunities for language development. The chapter includes comments on the possible limitations of observed classroom discourse on assisting learners' progress in language learning, and a report on what others have suggested as alternative modes of teacher discourse

In this chapter the development of Observation Protocols is presented with a description of their purpose and with details of indicators that have been selected for inclusion. An Observation Protocol (OP) is a tool used to collect data on classroom behaviours by both teachers and learners, and a protocol has been specifically developed for this study in order to register teachers' strategies considered conducive to second language acquisition. This chapter presents a brief history of other protocols, with an outline of their purpose and a description of the selection of indicators included in the protocols. The two sources that informed the selection of indicators on the OP used in this study were firstly the indicators in existing protocols and secondly the literature on effective instruction in second language acquisition (SLA). The chapter concludes with a summary of the literature on OPs relevant to the development of the OP.

3.2 Classroom Discourse and Pedagogy

Classroom discourse (CD) and communication between teachers and learners is at the heart of what creates the unique characteristics of interaction found in the instructional environment of the classroom. Allwright calls classroom interaction 'the fundamental fact of pedagogy' (1984:156) while Kumaravadivelu summons up the evocative image of classroom discourse as the 'crucible where the prime elements of education…..mix together to produce exclusive and at times explosive environments' (1999:454). The importance of the role of CD in pedagogical contexts is stressed by Kumaravadivelu, who maintains that what occurs during classroom talk can determine learning outcomes, stating that the educational environment can 'help or hinder' learning opportunities (1999:454). This notion of the contributory nature of CD in affecting the pace and nature of learning is supported by Wong-Fillmore (1985), with the view that the presence or

absence of particular characteristics of effective CD in language classes plays a significant role in learner performance, which is manifested through the linguistic interaction in lessons. This interaction is one element of classroom behaviour that gives us evidence of how a lesson is conducted and how classroom content is mediated. The language of the classroom is considered by Consolo when talking of the classroom environment as a place where the spoken discourse has pedagogical relevance, adding that the quality of teachers' management of classroom discourse is a salient factor in effective pedagogy (2000:91).

Classroom discourse can be considered as the locus classicus for pedagogical success in learners and as pivotal in allowing and providing learning opportunities which lead to progress. In addition to the pedagogical and instructional purpose of discourse in educational contexts our analysis of CD needs to consider the aspects of CD in classrooms. Language is the medium for instructional purposes and also the medium enabling the teacher to connect with the class and interact with individual pupils. Consolo (2000:91) refers to classroom discourse as more than a medium for conveying information, for it is also the medium for social interaction in the classroom when building an appropriate environment in which the rapport and the relationship between the teacher and pupils can flourish. The importance of features in the classroom cannot be ignored in the overall picture of interaction between the interlocutors in this context. But the aspect is more than the social chit-chat that often occurs in initial phases of the lesson. It can be manifested during procedural language for giving instructions or in classroom management issues. It can be used in the encouragement of learning, not only in the sense of giving learners compliments or in creating an environment of learning, but also in the sense in which incidental and peripheral talk can contribute to language input. The aspect is reflected in Van Lier's discussion of consciousness in learning contexts, and related to the Vygotksyian perspective, which emphasizes the social and affective factors influencing learning (1996:72). From a sociological point of view the classroom is a complex environment with variables affecting the classroom discourse that is produced. Factors affecting this are the fluctuating status and role of teacher and pupils, teacher behaviour, pupil motivation, task type and affective factors influencing the interaction between pupils within the class.

The importance of CD and its role in pedagogical success in pupil performance has been suggested above in the point about the saliency of teacher discourse. But it would be naïve to expect to be able to identify direct causal effects of the teachers' discourse strategies on the pupils' linguistic performance. Classroom talk is not the only source of language exposure for learners and cannot be considered as the sole model of language that learners will encounter. What the data on classroom discourse can show is how the discourse is managed in interaction with learners in pedagogical exchanges, and whether it results in teachers using didactical strategies that have previously been identified as effective in teaching a foreign language or teaching in a foreign language. The value of analysing language in classroom discourse lies in its role in identifying those characteristics that are considered to be relevant to second language acquisition and which can be added to the description of pedagogical practice.

Due to all the variables outlined above and the potential difficulties in analyzing data from classroom discourse, it has to be acknowledged that the data on teachers' linguistic input and didactical behaviours is participant specific and dependent on the individual choices made by the teacher in that particular context. Predictable patterns of discourse are expected to occur in all instructional contexts, but as each teacher displays individual

behaviour it is of interest to compare the frequency of these behaviours in instructional contexts, particularly with reference to strategies considered to be conducive to language learning.

3.3 Characteristics of Discourse

Research into the characteristics of classroom discourse and discourse outside instructional contexts has a long history. Studies have been carried out from within various disciplines; sociology, anthropology and linguistics. From the sociolinguistic perspective, the works of Austin (1962) and Searle (1969) investigating speech acts in oral interaction provided a typology of the functions of language utterances. Studies by Halliday (1973) on the social functions of oral language added to the descriptions of how language operates in social interaction. Work by Grice (1975) on Conversational Principles and the definitions of functions in language revealed the predictability of patterns and turn-taking in social discourse. Others interested in analysis of conversation from a socio-cultural viewpoint, such as Levinson (1983) and Ervin-Tripp (1979), applied a bottom-up approach to arrive at a descriptive account of interaction in social conversation. Their work aimed to account for how conversation works in real time, its purpose and function, and its effect. For the ethnomethodologists the process of a conversation as it rolled out was the significant aspect of interaction. While some parallels can be drawn between what we know about discourse in social contexts outside the classroom and how classroom discourse functions, we particularly need to look at the specificities of classroom language and how the interactions between interlocutors in this context take place.

One of the first studies carried out on classroom talk was by Bellack (1966), who identified a type of interaction that seemed to be prevalent in many classrooms. He referred to it as the teaching cycle, which described moves and turn-taking in classroom language. Subsequent work led to further analysis of classroom discourse and the resulting descriptions and classifications of interactions specified by Sinclair and Coulthard (1975). This seminal work carried out in the UK provided a model of the structure of discourse in Conversational Analysis (CA) that is applicable to pedagogical contexts. Sinclair and Coulthard were interested in exploring patterns in observed discourse sequences in classrooms, and from their observations they drew up a descriptive framework of utterances. The analyses revealed and codified a finite number of patterns of interaction used by teachers, resulting in findings that showed that one particular dialogic teaching exchange featured consistently in much classroom talk. This type of teaching exchange is referred to as the IRF model and consists of 3 moves: an Initiating move referring to the utterance of the first speaker (the teacher) the Response by the second interlocutor (the learner) and a Follow up or Feedback move by the first interlocutor to confirm, challenge or comment in some way on the response. This IRF model was developed after the analysis of pedagogical discourse from a linguistic and discoursal perspective; when applied to contexts other than pedagogical it was found to be equally appropriate. This triadic dialogue is also referred to as the IRE model (Initiate, Respond and Evaluate) by Haneda (2005). In this study the term IRF will be used to refer to this model of interaction.

In an analysis of the IRF model of discourse in classrooms, Van Lier (1996:151) sees it as the default mode of most CD and suggests that it is predominantly a classroom mode of interaction and not one met in authentic situations outside the instructional context.

This need not be seen as criticism but as an observation on the general modus operandi found in many classrooms. Indeed a classroom has its own specific characteristics, as do other interactional contexts outside the classroom. Dalton-Puffer (2007:72) refers to the IRF model as 'robust' in a pedagogical context and posits that the model is congruous with an instructional context where linguistic interaction is the medium for learning. It is an appropriate and therefore predictable model of interaction, as it seems to fit neatly into the context of the classroom and obviates other forms of interaction. Variants of the IRF model are considered by Haneda (2005) whose findings on effective teacher talk include the use of IRF exchanges in various ways. One conclusion made by Haneda (2005:239) is that the IRF model can successfully be applied to a transmission approach to teaching where the teacher is involved in presenting and checking knowledge of subject matter. Van Lier (1996:150) also considers the way in which the IRF model is useful and concludes that a possible positive result of its use is the provision of a clear framework in which teachers and learners can operate, with recognizable feedback moments for the learner. While this is one view of the IRF model, other writers are more critical of its use in teaching. Later in this chapter these views will be discussed, together with ideas on adaptations of the IRF model.

Another shared characteristic of discourse, both outside and inside the classroom, is a predictability of utterances and turns. Possibly driving the predictability is the concept of expectation-driven understanding, which suggests that the expectations of all interlocutors about the nature of response and turn-taking lead to this homogeneity of conversation types in comparable contexts (Cook 2001).

The classroom context though differs greatly from other contexts when we consider the number of interlocutors involved, the accepted or negotiated status of the participants and the assumptions of the function of the lesson event. All these create a specific context making a classroom a complex environment with its own distinguishing characteristics. The complexity stems from the unique context of classrooms with participants coming together to engage in a known social and educational construct. Traditionally, expectations of both teachers and learners as to how CD operates in the classroom have resulted in clear paradigms of discourse control and discourse output, with strategies emanating from these paradigms observed in many cases. As the context is familiar to both parties and is recurrent in the lives of both teachers and learners, it is not surprising that the patterns of CD will to a certain extent be common to all similar educational contexts, resulting in conventions of practice and specific patterns of linguistic interaction. As with the IRF convention mentioned above, other patterns in discourse have also been identified as context-specific.

Studies have been carried out to establish how robust and reliable the typologies of these patterns are, and one such study on classroom discourse in second language contexts was carried out by Richards and Lockhart (1996) who developed further the notion of predictable paradigmatic language. They list four areas common to much teacher talk in interaction with language learners: modification of language, questions, feedback and classroom interaction with learners on classroom tasks (1996:182). They further suggest that this teacher talk results in a variety of discourse that is specific to the purpose of instruction and therefore appropriate. This aspect of discourse 'fit for purpose' is driven by teachers' notions of what is effective in instructional talk. Teachers understand and appreciate the difficulties that pupils may face in comprehension and thus will adapt their language to accommodate the learners. Van Lier (1996:130) points out the paradoxical nature of this accommodation to the learner; while it is necessary for teachers to adapt

language to enable comprehension, at the same time they are depriving learners of a richer linguistic environment. Teacher talk, while doing its job to allow learners to access the content of the lesson, could be limiting learners in developing proficiency. Van Lier's suggestion is that with an awareness of their own production of form and patterns, teachers can apply pedagogical criteria to their spoken discourse to make it a more effective means of improving learning outcomes. Other aspects of teacher talk are considered by Van Lier, whose reference to teacherese (1996:132) proposes a description giving three aspects of teacher talk; form, content and interaction. This interaction includes prosodic features, syntactical form, modifications of lexis and grammar, corrective feedback and discourse control, some of which are addressed in this study.

The starting points for carrying out research on Classroom Discourse in language classrooms are diverse, and we find various labels and descriptions being applied. The theoretical framework of the IRF model is considered by some and critically assessed as to its applicability (Lyster 2007, Haneda 2005). Others take the concepts emanating from the theory of Speech Acts and apply this to their analyses (Dalton-Puffer 2007), while Nikula (2002) refers to a discourse analytic approach as applicable to an analysis of classroom discourse in CLIL classrooms. Kumaravadivelu (1999) sets out to develop a framework for CCDA (Critical Classroom Discourse Analysis) which places discourse analysis alongside the model of critical ethnography, giving a broader more socio-political view of discourse. Other studies carried out by Sharwood-Smith (1993) and Van Patten (1990, 1996) consider the teachers' discourse in terms of effective input leading to uptake by learners. These studies focus on the effectiveness of explicit use of metalanguage to assist learning, and investigate its role in input processing and language acquisition. Studies on how classroom discourse operates in context have different foci and direct their attention to aspects relevant to the research question being posed. The starting point for the analysis of classroom discourse and teacher talk can be from the perspective of a holistic approach, examining discoursal elements of the talk, with a broad view of the macro-contexts. This view takes as its core idea the complex nature of classroom interaction and the dynamics of the relationship between teacher and learners, which are seen as the driving force behind production of discourse. Work by Pierce (1995) and Norton (2000) addresses these notions, considering the concepts of investment in the learning process and social identity as the starting point in deciding how discourse operates in classrooms.

An alternative perspective examines the micro elements of discourse and the possible pedagogical functions. This includes looking at IRF exchanges, question forms and corrective feedback on pupil output. Here teachers' utterances are examined for their possible contribution to elicitation and encouragement of extended pupil utterances. Studies by Lyster (2007), Haneda (2003), Dalton-Puffer (2007) and Hajer (2000) investigate the typology of teacher utterances in exchanges with learners in CLIL contexts, and deliberate on the relationship of these exchanges to second language learning. Included in this field of research are studies on the effectiveness of input on SLA and the implementation of alternative methodological approaches (Sharwood-Smith 1993, Van Patten 1996, Norris and Ortega 2001).

Another aspect of classroom discourse, particularly in second language contexts is the use of the L1 and the L2 during interaction with the learners. In CLIL contexts, the basic principles of CLIL methodology dictate a high use of L2 by both teacher and learners. This stems from the role of content teaching through an additional language and the aspect of additional language learning through the learning of content. The concept of

the language as a tool for learning and as the medium through which content is learnt, and indeed taught, is at the centre of the CLIL approach, whether it is content-led or language-led. In a CLIL classroom, the language used by the teacher in integrating aspects of language and content endows the teacher's linguistic output with more salience due to this dual function: firstly, language as the medium for the message of content, and secondly, the language input as a model and resource for language development. The notion expressed by Coyle et al. (2010:35) that "using the language to learn is as important as learning to use the language" exemplifies the philosophy behind the approach and the emphasis placed on language in the classroom. The teachers' L1 and L2 use are important factors in the input the pupils receive.

Classroom discourse studies can consider the moments during lessons where language is used in giving instructions and not specifically as a medium of knowledge transmission. This study employs the term procedural language to refer to language used in activities involving classroom management issues and organization, excluding language directly relevant to cognitive tasks or language used in establishing the meaning of content concepts. This procedural language, or 'regulative register' as referred to by Dalton Puffer (2007:29), includes the language a teacher might use to start the lesson, in greetings and in social interaction with pupils. This type of procedural language may have a pragmatic nature as it can be seen by both teacher and pupils as serving a purpose in establishing and building relationships, and in setting the tone for class atmosphere. Other examples of procedure are the opening of the lesson by an activity, such as checking attendance and gaining pupils' attention in order to commence the lesson. Instructions on task completion and explanations of test marking procedures are also classroom activities included in the category of procedural language. All these types of routine activity are present in most instructional contexts and are accepted and expected modes of classroom behaviour.

3.4 Question forms in classroom discourse

The predictability of patterns of interaction as identified by Sinclair and Coulthard and others can be evidenced by the frequency of question forms in classroom discourse in many classrooms. Dalton-Puffer (2000:100) in a study on CLIL teachers in Austria confirmed the use of interrogatives as a common feature of the classroom discourse, but looked at the additional feature of the initiation of the question. The study showed that teachers' initiation of questions ranged from 53% to 100% of occurrences during the lessons. In classes where pupils became highly involved in the lesson, there were more examples of learner-initiated questions and many of these were content questions. Within CD, question forms generally seem to function as devices to elicit information from pupils, as ways to introduce new subject matter, as ways to check comprehension and generally as steering mechanisms for the discourse occurring in the lesson. This reinforces the point made at the beginning of this chapter that interaction is 'the fundamental fact of pedagogy' (Allwright 1984). While studies show that question forms are the predominant mode in classroom discourse, Ellis (1997:16) suggests they may not be the most effective strategy for creating conditions which can best assist language learning. He attributes the high frequency of interrogatives to the imbalance in classroom discourse control between teacher and pupils. The teacher's status as the one who has control of the discourse and who is steering the direction of discourse is generally accepted by both parties as the norm in instructional contexts.

The IRF exchange pattern with an initiating question is representative of how general discourse proceeds. Similarly, in a language classroom context, teacher questions are a common discursive characteristic of this initiation phase of IRF exchanges between teachers and pupils in language classrooms (Musumeci 1996, Ellis 1997). The predominance of question forms in classroom discourse has been confirmed by Musumeci (1996:293) in her work on negotiation in interaction, carried out in three Italian CLIL contexts. The study revealed that the majority of verbal exchanges between teacher and student were initiated by a teacher's question, this being in the form of a display question. The three teachers participating in the study used display questions in 69%, 84% and 90% respectively of all the teacher-initiated exchanges. Further studies and research have provided analyses of question use and given us typologies of classroom questions (Mehan 1979, Barnes 1969). Other studies reveal the form and function of teacher questions (Musumeci 1996), while McCormick and Donato (2000:197), in their study on teacher questions as scaffolded assistance, investigated the function of questions in the learning process. From this an additional typology of questions in teachers' CD was developed in order to identify effective teaching strategies. The question forms were identified within the framework of their functional contribution to scaffolding pupils' performance in terms of the comprehensibility of their answers. The questions were allocated to a category that was considered to be guiding the pupil to improve language output.

Additional studies have investigated how questions function in interactional dialogue with the learner, and have considered how questions operate in supporting and assisting the improvement of learner output. Long (1981) carried out a study into the function of clarification requests and the role they play in modifying interaction and allowing for learner output in interactional exchanges. In an analysis of teacher questions by McCormick and Donato (2000) the notion of scaffolded learning was taken as the starting point for investigating the types of questions in classroom discourse and those effective in supporting the development of learners' language performance. The study methodology was based on theories relating to collaboration and support by the expert teacher, and introduced new terminology for question typologies, also covering teachers' follow-up moves in the IRF sequence. Additional moves included aspects of encouragement and elicitation by the teacher. The findings demonstrate that purposeful questioning to assist comprehension of new lexis and to support learners in self-repair achieves positive results. Teachers' use of requests for clarification and elaboration of learners' utterances provides opportunities for progress in learners' language acquisition and acts as scaffolding for continued learning.

In a study specific to bilingual education in the Netherlands on the ideal CLIL teacher and effective pedagogy, concludes that questions acting as comprehension checks do not frequently occur in classroom discourse (2001:168). The more restrictive IRF pattern of exchange appears to be the norm in much classroom language. Van Lier, in looking at the organization of classroom discourse, suggests that the IRF structure is representative and typical (1996:149). It is certainly the case that the data on CD in this study supports this finding, with many examples of this type of interaction, where question forms initiate the triadic exchange. In a typical convergent IRF exchange, the question establishes a predisposition for a particular R move (response) and can preclude other R moves.

Pica's research (1994) on question forms addresses the issue of whether teachers with knowledge of SLA may be influenced by what the literature says is relevant and important to language development, which will in turn affect the types of questions

asked. This will have some relevance later in this study when we analyse CD from three instructional contexts and investigate any differences. Content teachers in CLIL may not have experience or specific knowledge of theories of second language acquisition, whereas English mainstream and English support teachers may come with knowledge of the theoretical basis of how languages are learned and the experience of putting it into practice.

This study takes a micro approach to the analysis of the classroom discourse of three groups of teachers and compares the frequency and mode of the teachers' actions that reflect the common characteristics of CD as detailed above. The observed and recorded CD from the three educational contexts is considered from two main angles: firstly, the linguistic strategies used by teachers in the presentation and mediation of content, and secondly the strategies used in exchanges in interactional dialogic talk with learners when giving feedback on their utterances. The aim is to identify examples of pedagogical strategies considered relevant to SLA and to consider the extent to which the CD reflects data from previous studies. The CLIL context is of particular interest here, as it falls into a message-based category of instructional context, where concepts in the subject matter form the core of the classroom discourse. In this context, where content and language learning are both important, the added consideration applies that if CD structure can influence and affect linguistic outcome of pupils, this could demand from teachers a greater awareness of how to provide opportunities for language output through their own classroom discourse.

3.5 Corrective feedback in classroom discourse

One of the major areas in the study on discourse relevant to learners' interlanguage development is how teachers react to learner output and what corrective feedback (CF) they give to learners. Such corrective feedback with regard to learners' output that does not meet target language models can assist in language learning and support the progression of learners' language proficiency. Numerous studies have been carried out to establish the efficacy of pedagogical options for SLA in immersion, CLIL and foreign language learning contexts. Some studies deal with the correlation between corrective feedback and pupil uptake (Lyster and Ranta 1997, Panova and Lyster 2002, Lightbown and Spada 1990), while others consider whether explicit or implicit presentation and explanations of language use are effective pedagogical options (Patten and Oikkenon 1996, Patten and Cadiero 1993, Sharwood Smith 1993, de Graaff 1997, Day and Shapson 2001). The findings of these studies appear to result in the identification of several broad types of pedagogical options considered conducive to SLA: feedback and learner uptake, form-focus and meaning-focus feedback, and teacher recasts. Lyster and Ranta (1997) expand these categories and assign corrective feedback comments to six categories: explicit correction, recasts, clarification requests, metalinguistic comment, elicitation and repetition. The category 'elicitation' subsumes various techniques, one of these being question forms in CD, an important aspect of CF and dealt with in a later chapter in this study.

Many studies have been carried out on corrective feedback in instruction and its effect on the level of pupil uptake as manifested in learners' language performance. Nassaji and Swain (2000) carried out an experimental study on the level of acquisition of the knowledge of English article use, correlated to scaffolded feedback occurring within the framework of negotiation for meaning. The research method was based on the hypothesis

that feedback given in accordance with the principles of Vygotsky's Zone of Proximal Development (ZPD) theory is more effective than random feedback. Vygotsky's concept of ZPD is that a learner's level of development includes what that learner can achieve with the assistance of another or in collaboration with others (Vygotsky 1978:85). This assistance can be in the form of demonstrations, of questions or forms of feedback. According to the ZPD concept, the feedback needs to meet the level of the learner, and will bring about learning only in situations where the chance for uptake is potentially present. This potential success can only be achieved if feedback is given when required by the learner, and when it is appropriate to that learner's needs. In a classroom situation, this individualized and made-to-measure approach of corrective feedback may not be achievable. Other variables in the interaction between teacher and class are present which may influence how the discourse progresses during the lesson. It may not be the teacher's intention to give corrective feedback following all non-conforming utterances, and the teacher's priority may be to maintain discourse flow and encourage learners' participation in the activity. Notwithstanding this, it seems that when feedback does occur, a directed and purposeful approach is more effective than implicit feedback in assisting the process of learning, thus adding to the learners' linguistic resources.

In a study on the efficacy of feedback in stimulating output, Panova and Lyster (2002), when examining the types of corrective feedback used with adult learners, found a predominance of implicit and reformulative teacher responses involving recasts and translation-recasts. A low 23% of the corrective feedback consisted of other types of comments. The authors suggest that this high level of recasts in the discourse may have been attributable to the learners' level of proficiency, which was perceived by the teacher as low. The authors hypothesise that the predominance of recasts could be unfavourable to the learners' developing language, since recasts and reformulations by the teacher provide the corrected utterance without requiring learners to draw on their own learning processes. These cognitive processes are involved either in retrieval of the correct language from the learners' own resources, or in an analysis of their own utterances when compared to the required versions. A recast by the teacher denies learners of an opportunity for self-modification, whereas it may be that learners, if given such opportunities, could readjust their utterances leading to improved language output. The opportunities to adjust may be more valuable to them in achieving long-term learning and autonomous language production.

Studies on learner uptake rarely measure this aspect longitudinally but usually focus on the level of immediate uptake occurring during the interactional dialogue. Criticism may be levelled against the practice of using the instances of immediate uptake as a valid or reliable indicator of future language acquisition. Such instances are momentary displays of repair that may or may not be internalized or lead to learners' long-term interlanguage development. Nevertheless, the analysis of corrective feedback techniques in classroom discourse cannot be discounted as completely irrelevant or unimportant to the consideration of how feedback functions. Examining teachers' behaviour and the manner in which they elicit responses from learners provides an inventory of possible options in the teachers' repertoire and is of interest to researchers in the pedagogic field of language teaching and language learning (Sheen 2004).

With the proliferation of teaching methodologies advocating a more communicative and functional approach and the possible shift from a primary focus on accuracy, the aim of many studies on teacher-talk and corrective feedback has been to answer the question of

whether or to what extent a need exists for a focus on language form during classroom discourse in language classes.

The discussion on form-focused instruction (FFI) and meaning-focused instruction (MFI) in SLA is covered in various studies investigating the possible merits of one over the other and the role both play in assisting language development. Studies on the effectiveness of FFI have been carried out in many research projects, with varying conclusions and at times conflicting results. Over the last decades, some studies responded to the then current thinking on SLA based on Krashen's Natural Order hypothesis and studies on L1 acquisition (1982). Some experimental research suggests that FFI can be effective as a support in assisting language learning by building up on previous linguistic knowledge, but not in producing significant changes in learners' natural progress (Ellis 2001:4). Ellis notes that research into FFI has refined its objectives into a focus on processes in SLA, rather than measurement of pedagogical effectiveness in promoting language acquisition.

The dichotomy of form-focused and meaning-focused instruction is discussed in studies by, amongst others, Netten (1991), Spada (1997) and Williams (2001). Netten calls for teachers to develop ways of explicitly indicating to learners that modification of their utterances is required (1991:304). Spada's review of research on FFI concludes that this approach seems to be beneficial to SLA, and maintains that FFI in a CLIL learning environment is particularly effective (1997:82). A study by Williams (2001) takes the initiator of focus-on-form episodes in classroom discourse as its topic and examines incidental episodes in classroom discourse when learners enquire about correct form. The conclusions stated are that beginning learners pay little or no attention to correct form, and regard meaning as paramount. The effectiveness of interventions by teachers of form-focused instruction is questioned, although explicit action is not dismissed. The suggestion is made that drawing learners' attention to form should be done at a time when the instructional task lends itself to attention to this aspect (2001:341).

Propositions by Long (1991) that FFI within a content-based framework is more effective than in a context focused solely on language form, clearly suggest that learners in a CLIL context should benefit more from FFI than learners in mainly form- and grammar-based mainstream English classes. Lightbown and Spada considered the efficacy of FFI on young learners of a second language (1990:443): while acknowledging that they were not able to specify the precise aspects of linguistic knowledge that are improved by FFI, they concluded that the results from their research supported the hypothesis that FFI makes a positive contribution to language acquisition, with the caveat that correction in context and timely form-focused correction are the most effective actions. A later review by Spada relating to research on FFI and SLA reinforces this conclusion, with the additional comment that FFI definitely benefits language performance within a CLIL context (1997:83). In other studies on classroom language and teacher comments to learners, the issue of timely feedback is discussed with reference to the appropriate moment to give feedback. When is it effective during discourse to give corrective feedback without a possible intrusion into utterance flow and an accompanying detrimental effect on learner confidence? In a study by Lyster and Ranta corrective feedback is perceived as not being disruptive to the interactional dialogue. Indeed, the authors posit that the teacher's actions result in additional opportunities for the learner to maintain the discursive interaction, thus creating the chance to adjust the utterance in order to meet the target language model given by the teacher (1997:58).

An additional consideration in the analysis of corrective feedback is the difference between proactive and reactive focus-on-form instruction. Are the moments of focus-on-form in the lesson initiated by the teacher, thus qualifying as proactive, or are they in response to language errors or limitations in communication between pupil and teacher, thus being reactive? Sharwood-Smith's paper (1993) on input enhancement addresses this point when investigating the effect of corrective feedback on learner uptake. In this study, Sharwood-Smith refers to positive input enhancement and negative input enhancement; the former involves proactively making salient to the learners the correct forms of input and the latter refers to incorrect forms by signalling in some way that an error has been made. The writer makes the point that the effectiveness of both negative and positive input enhancement may differ in accordance with the area of language being addressed (1993:178). This may result in certain specific areas of language being more susceptible to either positive or negative feedback than others. Research studies carried out by Lapkin and Swain (1996), Lyster (1998) and Lightbown and Spada (1993) seem to support promotion of the use of reactive feedback as an effective strategy for furthering SLA. When reactive feedback is given during moments when learners are actively involved in language production, and in response to learners' morphosyntactical errors or lexical limitations, it is possibly more effective than proactive feedback in supplying learners with feedback resulting in uptake. Lyster cites examples of a teacher who, while giving reactive feedback, exploits the moment by using it to provide the learners not only with the corrected utterance but also with synonymous language, particularly alternative lexical items, thus refining and expanding their subject-specific lexis (2007:48). Proactive corrective feedback on the other hand is not dismissed as ineffective instruction, and Lyster acknowledges that it has a place among the approaches to corrective feedback as a more systematic way of providing a structure for presentation of subject-specific lexis and grammar (2007:137).

Examination of explicit and implicit focus-on-form provides a further variable in measuring the effectiveness of FFI. Explicit FFI involves overt focus on a linguistic item with the intention of drawing the learners' attention to the correct form. Implicit language acquisition takes place when the learners are not necessarily aware of the linguistic aspect that is being demonstrated by the teacher, and the teacher does not explicitly draw their attention to it. In an experimental study on acquisition of morphology and syntax in a group of university students, de Graaff confirmed the hypothesis that explicit instruction facilitates acquisition of L2 grammar (1997:249).

A study by Van Patten and Cadierno addressing the effect of explicit instruction on language acquisition in Spanish university students revealed that positive results were achieved when instruction was focused on the processing of the input with regard to comprehension of form, rather than on the checking of accuracy in learner output (1993:240). This was contrasted with a 'traditional' approach of explicit instruction followed by practice with no further explicit teaching: this produced less satisfactory results in SLA. An experimental study carried out by Carroll and Swain (1993) into the effect of explicit and implicit feedback focused on whether negative feedback would assist acquisition of grammatical rules. In this study the group of learners who were given explicit negative feedback performed better than learners who did not receive this (1993:372). Explicit correction by the teacher through modelling the correct answer does not lead to self-repair, although it clearly results in an unambiguous answer for pupils (Lyster and Ranta 1997:57). Long (1983) has hypothesized that it is through negotiation of meaning that learners can modify and improve their language output. He states that one aspect of interactional language which can fulfil this function is that of teacher

recasts. Their use as corrective feedback falls into the framework of the interactionist hypotheses, which emphasize the importance of negotiation of meaning in interactional discourse.

A common strategy in giving feedback is by teacher-recasts, but research has shown that this is not always as effective as other forms of corrective feedback (Lyster and Ranta 1997) as they do not always lead to uptake by learners. Frequently, the learner is not required to produce an oral response to recasts, and teachers seem to use them for highlighting errors rather than as opportunities for pushed output. If a response is indeed required and forthcoming, this does not necessarily lead to the learner noticing the error, as the response tends to be a repetition of the teacher's utterance and does not necessarily induce the learner to reformulate by using his own linguistic resources. Classroom research has not yet clarified the effectiveness of recasts, and there is conflicting evidence on their efficacy (Ohta 2000:50). In a paper by Nicholas et al. the implicit and indirect use of recasts is termed 'mitigated feedback' which suggests that learners may not be benefiting as much as they might from teacher feedback (2001:740). Learners left with a problem in processing the recast run the risk of misinterpreting the feedback, resulting in a mismatch between their utterances and the teacher's. It is also suggested that teachers are at times unwilling to be specific in giving feedback and mask any critical comments in various ways, one of which is the implicit recast: this is not the most effective way of drawing pupils' attention to errors. Another issue is whether recasts affect only the learner to whom they are addressed or whether they also impact positively on the language development of other learners in the classroom. This study examines the frequency of recasts in CLIL classroom discourse and whether they lead to self-repair by the learner.

In considering the effect of prompts and recasts in language pedagogy, Nicholas, Lightbown and Spada (2001) see a possible correlation between changes in methodologies and a change in attitudes to corrective feedback in language teaching. The principles of Communicative Language Teaching (CLT) could be interpreted as proposals for a more relaxed focus or at least a less overt one on how to deal with errors in pupil utterances. Placing the emphasis on a more task-based and learner-oriented approach entails the risk that the teaching priorities could become less focused on accuracy. In language teaching the rigid adherence to rule learning and drill practice of the formal grammar-translation approach has mainly given way to a functional and communicative focus, with a change of emphasis on a less restricted learner output. How are errors to be corrected and feedback given if the primary objective is the communicative and purposeful use of the language? The strategy of using recasts is one area of feedback that is thought to be a less evasive means of providing corrective feedback. In place of an explicit comment on error occurrence, the teacher replies to the learner using the utterance in correctly recast form in the expectation and understanding that the learner will notice the gap between his original wording and the recast, and will then self-repair.

> P: The boy have many flowers in the basket.
> T: Yes, the boy has many flowers in the basket.
>
> Nicholas, Lightbown & Spada (2001)

In the example above, the verb form is corrected by the teacher and recast to the learner, but recasts can also deal with lexical, phonological or syntactical errors. While recasts

can be categorized as a focus-on-form procedure, they are a form of implicit rather than explicit feedback.

Any discussion on recasts in a second language context has to consider corrective feedback that includes a translation-type recast. In a paper by Panova and Lyster (2002), the typology of feedback types developed by Lyster was expanded to include this type of recast. In a study on the effect of feedback on adult ESL learners, the data revealed examples of translations which were provided by the teacher in response to a learner utterance and which functioned as recasts. The results of this study showed that this type of recast was the least efficient in inducing learner uptake (Panova and Lyster 2002:587).

The discussion on the effect of recasts on learner repair is still continuing, with some conflicting conclusions about the outcomes. The use of recasts as learning opportunities was encouraged by Long (1996), who described them as moments for comparison of the learner's utterance with the correct model, and a chance for learners to notice and repair the error. In a discussion on interactional analysis, Ellis and Barkhuizen (2005:184) include the recast in the framework of negotiation-for-meaning acts, with the caveat that even though recasts are often the preferred method of corrective feedback, the level of uptake is not always commensurate with their use (Ellis and Barhuizen 2005:174).

In a study by Mackey, Gass and McDonough (2000) on recasts used in classes for adult learners of English the results showed that the recasts relating to morphosyntax often went unnoticed by learners, and did not lead to self-repair. On the other hand, feedback on phonological features and lexis tended to be recognized by learners as corrective feedback. Lyster's study on the effect of recasts and prompts in a French immersion context concluded that recasts were a less effective strategy than prompts or focus-on-form instruction in enabling acquisition of rules of gender in French (2004:399). Observations of recasts in immersion classes revealed that for the most part the recast was not successful in improving accuracy in pupil output. They tended to occur during the presentation of complex content material and could be perceived by the pupils as referring to the content rather than actually attempting to draw attention to the form. This ambiguity of purpose leads to the recasts not being taken up or responded to, as they are not registered by the learner as being relevant to language form (Lyster 2004:404). The effectiveness of recasts is also questioned in a study by Ammar and Spada (2006), who considered how recasts and prompts were used with three groups of young learners. One group received corrective feedback in the form of recasts, the second in the form of prompts and the third was a control group. A general conclusion of that study was that prompts were more effective than recasts, with the additional finding that high-proficiency learners benefited from both prompts and recasts (Ammar and Spada 2006:543). The authors note though that there is no definitive answer as to what can be considered the most effective form of corrective feedback (2006:586).

Following on from this, Verplaetse's work defines interaction in the language classroom as the opportunity for the pupils to 'practice extended discourse' (2000:224). This concept is commensurate with Swain's Output Hypothesis (1995) which emphasizes the importance of output in giving pupils opportunities to check their own utterances against target language norms. Verplaetse's research question addressed the issue of the types of strategies used by language teachers in the creation of interactive classroom discourse. The researcher carried out a quantitative study of the frequency of certain moves made in the classroom by one teacher in a class that had previously been identified as being highly interactive. This teacher's dialogic interaction with learners was compared with

that of two other teachers to identify differences in approach. The results showed that the notably interactive teacher used more strategies for elicitation, and the feedback given was mostly in the form of acceptance acts and not corrective: i.e. repetitions, recasts and paraphrases. It was suggested that the use of acceptance acts was a more effective strategy enabling pupil output than explicit and overt feedback on form (2002:239). Verplaetse's study does not set out to measure the accuracy of learner production, but does show that more interaction and learner output occurs when pupils are pushed to respond and to elucidate on short answers (2000:232). Accepting Swain's pushed output hypotheses then, this approach in a CLIL classroom of providing opportunities for extended output would be a recommended strategy for teachers to employ. This leads on to the discussion of whether explicit feedback might inhibit pushed output, as it could be perceived as an interruption to the flow of classroom discourse, particularly by the learners. Other research has added to the discussion of feedback and interaction and shown that it is possible for teachers to provide explicit feedback without putting the brakes on the flow of interactional language (Lyster and Ranta 1997). Lyster suggests that there is no need for a choice to be made between giving corrective feedback and maintaining communicative interactional flow, and states that both can be part of effective instructional classroom discourse (2007:93).

In looking at the role of CD in the acquisition of some morphosyntactical aspects of language Goldin-Meadow (1982) applies the labels 'fragile' and 'resilient' to aspects of language less easy to acquire and language habits seemingly difficult to change even after exposure and communication. Studies carried out on grammatical features acquired by learners reveal that morphological features are less likely to be as quickly acquired as syntactical features (Bardovi-Harlig and Bofman 1989). This could be seen as an argument in support of the concept of overt focus-on-form as a mode of instruction. This explicit metalinguistic focus may lead to interlanguage development, although Ellis adds a caveat that some features are so resilient that it is questionable whether learners will acquire them even through overt instruction (1997:51). This view is supported by Nicholas et al. (2001:752) in reference to the use of recasts in language classes, which at a certain point in a learner's interlanguage development are ineffective in producing a higher degree of accuracy in learner output.

Given that overt focus-on-form and explicit feedback may lead to acquisition of structures and lexis, the question then arises as to how much of instructional language in CLIL classes should be focused on overt attention to these micro-linguistic features. Or can the exposure to language in content provide learners with sufficient richness of linguistic input? In research carried out in French immersion classes, Netten questions whether instructional classroom discourse should be more cognitively or linguistically oriented (1991:302). The data in that study suggests that the teachers' choice of strategy in interactional language and dialogue is more efficacious when providing an environment for learners to use the language and that this use of the language is more important in promoting SLA. In addition it has been suggested that explicit modification of learners' utterances not meeting the target language norm will lead to an improvement in interlanguage and that the employment of more explicit corrective feedback techniques leads to a higher level of accuracy (Lyster 2007:63).

3.6 Asymmetry in classroom discourse and promoting learner output

While both classroom discourse and social interactional talk share some common characteristics, such as predictability and turn taking, there remains the issue of asymmetry in classroom discourse in terms of both topic control and turn control; these aspects seem to put classroom discourse into a category of its own. Language in the classroom is the medium of communication between interlocutors in situations where the management of classroom procedures, both pedagogical and didactical is taking place. This management is mainly in the hands of the teacher with the consent of the learners, and the way in which the discourse proceeds will depend on how the teacher chooses to run the lesson. Ellis maintains that the perceived need for the teacher to maintain control of not only class management aspects but also of the discourse will lead to a discrepancy between the turn-taking aspects of classroom discourse and those in more social interactional discourse outside the classroom (1997:51). The power of control of the discourse is usually accepted by both participants as invested in the teacher, which results in disparity in discourse turns and discourse output. In investigating the control of CD in CLIL classes, Musumeci confirmed the imbalance of the amount of teacher talk as compared to learner talk, with 66% to 72% of the CD being taken up by the teacher (1996:293). This imbalance is considered by Musumeci who concludes that a domination of the discourse by the teacher is at times to the detriment of learner participation; she substantiates this with examples of missed chances for language development and suggests that more negotiated interaction would provide additional learning opportunities (1996:315). Ellis (1997) concludes that due to the asymmetrical control of the classroom discourse, the expectation that language classrooms will be contexts providing a language-rich environment for language acquisition may not be the case.

In looking at the relationship between classroom discourse and the power of controlling the discourse, McKay and Wong (1996: 603) working with a class of Chinese learners in a US educational context, found that the aspect of who controls the discourse affected learning. Their description of classroom discourse highlights aspects of power that 'delimit what can be said about something, by whom, when, where and how'. The notion that discourse is conventionalised and at times formulaic is generally agreed upon, with the understanding that the power of classroom discourse control lies with the teacher. When this power is contested in some way by the other participants in the classroom the discourse type may be influenced in some way and this may limit even more the type of discourse produced, with less variety and fewer opportunities for pupils to test and revise their language production. The principles of the interaction hypothesis from Long (1991), the ZPD concept of Vygotsky (1978) and the notion of negotiating for meaning from Long (1991) and Swain (1995), all encourage interactive dialogue in the acquisition and refinement of language learning. This would imply that the control of discourse is a key factor in deciding whether these principles can be applied during classroom events.

In a study by Dalton-Puffer it was found that many CLIL lessons, while extending subject-specific lexis, do not consistently promote extended pushed output either in the development of complete propositions or in the development of language pragmatically applicable to contexts outside the classroom (2007:261). It is suggested that an incomplete and minimal answer type is typical of many classes in teacher-led discourse and that the paradigmatic expectations of both teachers and pupils lead to an acceptance by both parties that extended and full propositions by pupils are not required. The conventions of discourse in classrooms where control is in the hands of the teacher are seen as responsible for producing this specific contextualised interaction.

The idea that language learning is not only dependent on cognitive actions, but that it is also a social activity, is an approach recognised by theorists and researchers who maintain that it is within the contexts of social constructs that learning will flourish. The Sociocultural Theory of Vygotsky (1978), when applied to language learning, gives a framework which proposes that joint activities between the novice learner and the experienced teacher are the key to successful accomplishment of progress in learning. Givon's Discourse Hypothesis (1979) claims that language learners will acquire the varieties of language found in the context in which the learning is taking place; if so, this is argument enough to examine the varieties of language that learners are exposed to and to advocate that teachers strive to provide a rich and varied linguistic environment. Teachers' choices of how to order oral exchanges in interaction with pupils can promote an environment where input from pupils is allowed and made possible.

3.7 Limitations of classroom discourse

Many studies on CD have resulted in critical voices expressing concern at the limitations of some classroom discourse and its inability to provide rich opportunities for pupils' linguistic and cognitive development. Boyd and Maloof (2000:164) cite studies indicating that interactional talk in classroom can result in 'choppy, tentative utterances' by pupils (Gutierrez 1994, Nystrand 1997). Boyd and Maloof conclude from their own study that the role of teacher talk is important in providing opportunities for student talk (2000:179). This student talk is that which is original and spontaneous, not the reiteration of teacher utterances or texts directly from the course book.

The stability of the predictability of forms in CD and their effectiveness in classroom discourse is criticized in a study by Van Lier (1996:151), who implies that this static framework of talk can work against the learner at times by stifling constructive interaction and by not allowing for expansion in learners' utterances. The notion is that expansion of their own language will give learners chances to improve proficiency. The concept of learner-produced original talk leading to progress in language proficiency supports Swain's output hypothesis (1995) that more language output leads to an improvement in proficiency levels.

Ellis also expresses concern about the quality of teacher talk. He refers to the discourse in second language classrooms as 'distorted discourse' with a limited range of grammatical forms and few opportunities for sustained output by the learners (1997:51). In a study by Allen et al. (1990), into effectiveness of teacher strategies, the researchers identified a paucity of opportunities for practice of communicative language. An example of a missed opportunity to provide authentic communicative language was the failure of some French immersion teachers to model the use of the tu/vous contrast during lessons; an omission of an opportunity for learners to access or practise an important aspect of sociolinguistic competence in French, which in other discourse contexts would in all likelihood be prevalent. The idea that teacher talk can somehow inhibit and restrict learners' responses is echoed in work by Lemke (1989), who discusses teachers' management of discourse. If it is too highly controlled by the teacher and allows learners little flexibility and limited opportunities for output, then it can result in a stilted range of responses, such as repetition of teacher utterances or regurgitation of language found in lesson texts.

In discussing doubts about the effectiveness of the IRF model of interaction in assisting language development, Dalton-Puffer talks of the IRF receiving 'a bad press' over the

years (2007:72). One problem she points out is that in the classroom the student's response to the teacher's initial question is often answered by an evaluation of correctness or a check of knowledge. This third move acts as a kind of cork on the dialogue, thus ending the learners' chances for further elaboration.

Comments on the effects of restrictive classroom discourse limiting any learning, and in particular the role of the IRF model in effective pedagogical discourse, lead to a discussion of the gap between classroom discourse and discourse outside the classroom. The authentic and communicative nature of discourse outside the class is often held up as a model for communicative language learning, with its focus on functional and meaningful language as opposed to a focus on form. The communicative and interactional model has been advocated in the past, with introductions of new methodologies in language teaching, such as task-based learning, which proposes that an open and communicative type of pedagogy is more effective and that the discourse of the classroom should reflect this. But how far should classroom discourse be required to imitate discourse outside the classroom? Classroom discourse is authentic discourse per se in that it is or has been a regular feature of most people's lives. The authenticity of classroom language and its suitability for classroom use is discussed by Van Lier (1996:132), who states that as discourse needs to address the audience for whom it is intended, teacher talk is appropriate to the classroom environment. At the same time, he acknowledges that if the teacher is not mindful of the need to provide a rich language context for pupils, then this teacherese could be limiting learner language development. How then to combine these two possibly conflicting aspects in classroom discourse? The conclusion that the answer is not as straightforward as communicative methodologists would maintain leaves us with the challenge of how to provide the best possible linguistic environment for language development. Others suggest that CD be treated as a stand-alone object of study and not be compared to discourse outside the classroom. Dalton-Puffer makes the point (2007:18) that pedagogical discourse cannot be compared with discourse outside the context of education, as it is its own authentic context and as such should be accepted as being different but efficient and suitable in the context in which it operates.

In assessing the findings from studies on corrective feedback it has been shown that in some instructional situations the available options are not always taken (Huibregtse 2001) as it is not usual to find teachers who correct all pupil errors. This inconsistency in approach is discussed in a paper by Sheen on the effectiveness of feedback on language development (2004:265). The observed erratic and capricious nature of corrective feedback in classroom practice is criticized for indicating a lack of purpose in assisting learners to modify errors.

3.8 Making CD more effective

In view of the critical comments on the limitations of some classroom discourse, it would be useful to look at what has been suggested about the possible ways of allowing teacher talk to be more effective in assisting language development in learners. The IRF paradigm, a common feature of most classroom discourse, seems an obvious area to investigate. The basic pattern is one that is without doubt typical of most classrooms, and is appropriate to the context. But it is a pattern that with some consideration of the variations on a theme can be used to better effect. McCarthy and Carter take Sinclair and Coulthard's model a step further to suggest that the knowledge of how discourse works

from a Conversational Analysis perspective could be used to modify and adapt CD in the language classroom (1994:185). They suggest taking the IRF model and adding a second follow-up utterance to perform pedagogical reinforcement and knowledge checking. In the previously mentioned study by Verplaetse (2000) of a highly interactive teacher, Sinclair and Coulthard's model was taken as a starting point in the analysis of the classroom discourse. The study revealed that the teacher often expanded the initiation move to include an additional move, which Verplaetse refers to as a scaffolding move. This scaffolding elicitation by the teacher challenged the learner in some way to extend and elaborate on the initial answer in one of several ways. The teacher indicated that the answer was either incorrect or incomplete and required a reformulation by the learner, or responded with a further question or challenged the learner to add to the original successful answer. It is suggested by Verplaetse that the expansion of a move to include additional exchanges involving scaffolding elicitation techniques are moments in which the effective teachers give learners opportunities to expand and add to output (2000:239). Mehisto et al. support the idea of extending the turns and suggest that continuing the exchange will not only provide a chance for self-repair, and thus an opportunity for language development (2008:170), but will also provide the pupil with a chance to clarify and express thoughts and ideas about the content. For the learner this will be, in all probability, more motivating than a pure language focus. The suggestion that teachers increase their awareness of the choices that are available to them within the IRF model is made by Haneda who proposes that this awareness should be used as a means to reinforce and promote their teaching objectives (2005:329).

Richards and Lockhart suggest that patterns of interaction could be affected by the didactical methodology and approach taken by the teacher (2000:84). For example, in a second language classroom where the lesson is based on an inductive methodology of grammatical rule discovery and communication, it may be that there are more occurrences of pupil-initiated talk. If communication is encouraged and a more task-based learning approach is operating, then the balance of discourse control might swing in favour of the learner. So here one might observe a learner-centred approach that does not fall into the category of the IRF pattern and which facilitates more learner talk than teacher talk. This approach to an open variety of CD is supported by Haneda (2005:329), who provides examples of teachers' effective employment of the IRF model, using the scaffolding move to ask more open-ended questions and a variety of follow-up questions, thus allowing learners to elaborate on their answers. In a proposal to improve the quality of teacher talk Van Lier calls for teachers to question their own talk in classes (1996:133) and suggests that a conscious awareness of their teacherese will lead to a more controlled use of strategies and will 'increase the range of expression available as exposure'. This concept is supported by Pica (2002), whose study on content lessons and their role in SLA showed that while exposure to language in discussion type activities provided a meaningful context with active participation of the learners, the concern was that the range or repertoire of teacher strategies for language focused activities was too limited. Ellis (1997) adds another voice of concern that communicative language contexts do not always lead to acquisition of some morphological aspects of L2 grammar. While he accepts the theoretical principles of Communicative Language Teaching in L2 contexts, his stance is that instructional contexts founded solely on the principle of communicating meaning of content are not on their own sufficient. This suggests the need for a more proactive approach and a focus on linguistic aspects.

In addition to consideration of these aspects, other researchers have investigated the function of utterances in instruction. Netten (1991), in investigating teacher talk in second

language classrooms, considers the role of teachers' verbal messages in assisting learners to comprehend content. Netten emphasizes the importance of the role of the teacher as a linguistic model and suggests a higher level of interaction to allow 'more experimentation' with the language. An additional recommendation made by Netten (1991:303) when addressing the issue of teacher development and training in mediation of content is that of encouragement to use aids to assist comprehension and not to assume comprehension by the learners. These aids can be paralinguistic, visual prompts and additional verbal clues. While paralinguistic features may not be an overt part of the classroom interactional discourse, they form part of the repertoire of strategies that teachers can use in mediating and presenting content material. The use of additional verbal clues falls into the category of scaffolded assistance, an approach advocated by much of the current literature on CLIL in the classroom. Mehisto et al. (2008:29) use the phrase 'repackaging information in user-friendly ways' in their recommendations of classroom strategies for CLIL teachers.

One of these strategies is the use of questions in CD; Nassaji and Wells (2000) suggest that while the initial question in the triadic dialogue in the classroom is influential in eliciting a response from the learner, it is the choice of follow-up question in the feedback stage that will be more decisive in leading to opportunities for learners to improve language development. It is therefore the teacher's choice of response that can lead to a more effective exchange. Haneda investigates the use of the triadic dialogue in various educational contexts and concludes that it can be an effective classroom strategy in expanding learner participation in the discourse when the Feedback section of the IRF pattern acts as an extension of the initial question (2005:313). The feedback should not reiterate the answer or give an evaluative comment on the pupils' responses: what is needed is a request for further elaboration or justification, which will challenge pupils to expand and improve their output.

In examining how to improve questioning techniques in class we can turn to work by Echevarria and Graves (1998), who identify three types of helpful questions designed to 'enrich instructional conversations'. The first type of question is intended to promote learners' responses requiring an elaboration of the original utterance. The teacher's question will challenge learners to attempt to increase the amount and the quality of output.

> Type 1 Examples:
> "Tell me more about that".
> "What do you mean by..?"

The second type of question elicits output from the learner in the form of a justification of a statement or a defence of a position already stated.

> Type 2 Example: "How do you know?"

And the third type of question suggested by Echevarria and Graves is that posed by the teacher when asking learners to reflect and predict on content.

> Type 3 Examples:
> "Look at this page and tell me what you think the chapter is about?"
> "What makes you think this might be different?"

The types of questions which tend to ask learners to justify and support answers will not only provide learners with opportunities to produce more output, but are also more communicative and intrinsically more authentic and meaningful. This view is supported by Dalton-Puffer with a call to direct questions away from the opportunity to display knowledge of facts to a pedagogical environment more focused on 'making thinking processes linguistically explicit' (2007:125).

The argument is put forward that effective classroom questions should be 'mediational'; (McCormick and Donato 2000:183), meaning that they should lead toward development of learning through the mediating of content and through negotiation for meaning. This suggests that a purposeful questioning strategy with open questions, giving teachers and learners time and opportunity to exploit the moves in a classroom speech event, is an effective way of generating more learning opportunities. This stance is supported by Dalton-Puffer (2007:126), who suggests that in a bid to make the content more linguistically challenging, teachers should pose more open questions such as those suggested by Echevarria and Graves (1998), which in turn would produce more extended responses from learners.

All the above results and conclusions are based on findings taken from data on CLIL and foreign language contexts. Although the principles of these two contexts and their associated methodologies differ somewhat in specific objectives, it can be argued that issues in SLA are also relevant to the objectives of the CLIL programmes, and need to be reflected in the methodology advocated and practised within CLIL educational environments. Research informs us how effective certain strategies are in assisting SLA, and if optimum language learning is to take place they cannot be considered as falling outside the brief of the CLIL programme. Classroom discourse which allows for an active negotiation of meaning in the classroom seems to be the recommended path to take for corrective feedback, through the engagement of pupils in noticing errors and in taking the consequent opportunities for self-repair. The results of studies and research suggest that negotiation-for-meaning and scaffolding strategies are effective routes to improved language acquisition. Corrective feedback that is focused and elicits reiterations in pushed output leads to higher pupil performance and includes effective pedagogic options.

It is to be noted that some of the published research into corrective feedback and learner output and uptake was carried out with learners at universities and in adult education classes. In those settings language development was measured in experimental studies and often in one-to-one dyadic exchanges. These conditions are not comparable to the setting in which this study was carried out, nor was the study intended to replicate these other research projects. This aspect should be taken into account when measuring the frequency of strategies found in the data. Lyster and Izquierdo (2009) acknowledge the role that setting has on learners' SLA and explicitly recognize the difficulties of directly drawing comparisons between results from an experimental study with adult learners and those from an investigation conducted in a classroom setting with teenage learners. The difference between the two contexts is setting-related. The actions taken in a school classroom, both by learners and the teacher, are influenced by various factors, and the 'hurly-burly' of the classroom (Lyster and Izquierdo 2009:487) results from a myriad of dynamics. The classroom discourse needs to be considered as just one aspect of the whole, and lessons containing rich data in terms of interaction and feedback moments provide further information relating to these various other factors.

3.9 Observation Protocols

In order to register these moments in lessons when interaction and feedback occurs, an Observation Protocol was developed as a tool to provide data for the analysis of the teachers' classroom discourse. The body of literature and classroom-based research on classroom observations contains many different Observation Protocols for various purposes. Over the years, classroom observation techniques have attempted to produce protocols and schemes that could be useful tools for descriptive and prescriptive attempts to establish the component parts of effective instruction. The question of what makes for effective language teaching is one that is of interest to linguist, teachers and researcher working in the field of language teaching. However, due to the complex nature of classroom behaviour and the myriad factors occurring during this type of instructional activity it is problematic to extrapolate any definitive conclusions about which behaviours are effective. Allwright and Bailey talk of the problem of using observation to attempt to establish any description of effective teaching methodologies (1991:8), suggesting instead that a course of action be followed that focuses on a description of what is happening in the classroom. Politzer talks of the difficulty of talking 'in absolute terms of good or bad teaching devices' (1970:43), and acknowledges the difficulty of using classroom observations in any way as a prescription to effective instruction.

The purpose for which classroom observations are used will guide the type of tool developed and its application in measuring classroom activity. If the viewpoint is sociological in nature and concerned with how interaction occurs and how turn taking is managed, then the indicators of behaviour will be selected in order to serve that purpose. If the starting point is linguistic enquiry into language output, input and intake, then the indicators on the Observation Protocol will be focused on behaviour relevant to that purpose.

Observation Protocols used in previous studies in classroom-based research were developed for various reasons. Some OPs were developed for general teacher training purposes, such as the FLINT OP developed by Flanders (1970) which was based on temporal measurements of teachers' interaction with learners, including verbal and non-verbal actions. Flanders' model of analysis investigated teacher-talk and student-talk and considered how direct and indirect actions were carried out. Indirect actions to influence student performance included giving encouragement and praise. Direct actions were explicit explanations and giving directions on how to perform tasks. This model was adapted by Moskowitz (1971) and expanded to include more indicators in the indirect and direct category. These included the use of question forms in teachers' discourse, repetition of the student's response and corrections without rejecting the answer. The observations were used to assess and evaluate teachers' classroom behaviours with a view to building a profile of outstanding teaching in relationship to learner achievement. Criticism of the Flint Model has been expressed by Bailey (1975) who questioned the reliability of the methodology of both this and Flanders' model and was cautious about drawing generalizations from the data that was collected. Some years later Fanselow (1977) developed FOCUS (Foci for Observing Communications), a scheme used to analyse and categorise elements involved in communication in the classroom. This scheme looked at the lesson in a holistic way and consisted of five categories of behaviour. The first was the teacher as the source of discourse and then the pedagogical purpose was noted. The medium of instruction was the third aspect of the scheme; for example, the material could be mainly presented orally or visually and written material

could be used to present content. The cognitive focus of the lesson was included, and finally the content of the lesson was noted.

Other literature relating to classroom discourse consulted for reference purposes was authored by Long, Adams, McLean and Castaños (1976) on aspects of classroom talk, such as the pedagogical purpose of talk, the social skills manifested through language and teachers' rhetorical acts. Work by Chaudron (1977) focused on the types of corrective reactions teachers gave to learners' utterances. The work of Sinclair and Coulthard (1975) was also consulted when making the selection of indicators for the Observation Protocol. Their work on moves and turn-taking was particularly useful when considering the interactional dialogue in the classroom and provided part of the theoretical background for the development of the protocol for this study. Their work on the predictability of turn-taking in classroom discourse, the description of the IRF sequence of initiation, response and feedback, and the interaction between teacher and pupils was relevant to the inclusion in the OP of indicators such as teachers' extended sequences in response to pupils' answers.

A protocol that has been widely used and mentioned by other researchers (Huibregtse 2001, Lyster and Mori 2006) is the Communicative Orientation of Language Teaching scheme (COLT) developed by Fröhlich, Spada and Allen in 1985. The scheme is divided into two parts. Part one includes indicators based on issues from literature on Communicative Language Teaching (CLT) and measures classroom activities in pedagogical and organizational terms related to CLT. The second part includes indicators reflecting issues in second language acquisition and describes verbal interactions between teachers and pupils. The COLT protocol includes some of the aspects that are relevant to the OP developed for this study, such as the use of the target language, the teachers' reaction to code or message, and correction attending to form.

One classroom observation model directly relevant to teacher training in CLIL contexts is the Sheltered Instruction Observation Protocol (SIOP) developed by Echevarria, Vogt and Short in 2000. A particular aspect of interest to the researcher in this study is the notion of comprehensible input and the way teachers mediate material to achieve this. The COLT protocol includes aspects of teachers' behaviour in the planning and carrying out of the lesson. Strategies of lesson delivery and interaction related to making content comprehensible to learners are noted. These categories of behaviour in the SIOP model were considered when selecting indicators for the OP for this study. The concepts of comprehensible input and teachers' strategies in manipulating and mediating input to provide linguistic scaffolding and support in the learners' L2 were compatible with the research questions. One other protocol and tool for discourse analysis also used as a reference in the development of the OP is Westhoff's SLA Penta pie (2005). This scheme was used by de Graaff (2005-06) in developing an observation protocol based on the five segments of the Penta pie; exposure to input, meaning-focused processing, form-focused processing, output production and the use of strategies by pupils.

All of the above documents formed a reference base in the development of the OP for this study, which was specifically designed to cover aspects of classroom behaviour relevant to teacher strategies used in providing opportunities for second language development. The selection of indicators was made with reference to two main sources. The first comprises the OPs described above and the second was research on effective instruction in the field of SLA.

3.10 Selection of indicators

The schemes and protocols detailed above provided a rich source of indicators reflecting a range of teacher and student behaviour and descriptions of lesson planning. The focus for this study is the analysis of teachers' discourse in the use of the target language, of presenting content, of making content comprehensible and in conducting interactional dialogue. The selection of indicators was based on the research questions, so the choice of which to include was made based on their relevance to these questions. Existing OPs also provided information on the method of registering occurrences. One method that has been used in other observation schemes is a system where observations are made at timed intervals. An alternative method adopted in this study is the registration of all didactical options taken by teachers based on preselected indicators. The registration of selected strategies revealed the full range of their classroom discourse and allowed comparisons to be made of discourse in the three instructional contexts.

The second area to consider in the selection of indicators was what the literature suggests as effective instructional practice in second language learning. Effective instruction is an elusive concept that can be demonstrated and accomplished by many different behaviours and actions in the classroom. Due to the complex and multifarious manner in which classroom instruction works, there is no instructional manual that can be followed in order to produce the most effective classroom practice. There is though an existing body of work which indicates aspects of SLA that can be transferred to the pedagogy and didactics of classroom practice in second language learning environments, such as CLIL lessons. We should definitely not ignore what the many studies on SLA have found when considering classroom strategies conducive to language acquisition.

Research studies can provide us with some evidence of effective instruction in language learning. Consolo (2000) suggests that a scaffolded teaching and learning style can assist learning, while Norris and Ortega, in a meta-analytical review of studies involved in assessing the effectiveness of different types of instruction, conclude that studies show that focused L2 instruction with explicit explanations results in language improvement (2001:202). Other concepts in SLA that have been put forward as assisting second language development form a reference base for the selection of the indicators on the OP. One of the concepts is Krashen's notion of the role of comprehensible input in language acquisition and the idea of exposure to language. Krashen (1982) maintains that effective mediation of input allows the teacher to tap into the learners' previous knowledge and to present new language to enable them to progress and develop. Work by Swain (1985) on the output hypotheses suggests that it is during output that learners are given opportunities to adjust and adapt utterances to meet target norms. Lyster's counterbalanced approach (2007) applies to the combination of language and content and details a methodology of effective teaching in CLIL contexts. Long's concept of negotiation of meaning (1991) refers to a dialogue between interlocutors when there is a lack of comprehension. Such dialogue is an opportunity to refine and clarify meaning through the use of various strategies in order to assist comprehension. These strategies can provide moments for adaptation or elaboration and enrich both input from the teacher and output from the pupil.

Other studies consider strategies in didactical methodologies using a focus-on-form approach. Research into focus-on-form approaches in second language learning suggests that there may be gains to be made by explicit and proactive approaches to language form during instruction (Lyster 2007:127). In considering efficient and effective strategies

used in giving corrective feedback, Ohta's work has shown that explicit recasts in corrective feedback can assist in second language acquisition (2000:66).

A general criticism of some of the protocols is that the indicators have been predetermined. Consequently, due to the very nature of this type of assessment, other aspects of interaction and behaviour may be missed. Classrooms are dynamic in the way the interaction develops and it cannot be assumed that one specific type of action will necessarily lead to achieving progress in learners' language proficiency, as the learning process is not a linear progression from teacher action to pupil learning. The matter is more complex than that. Nevertheless, as the research questions require investigation of the differences in classroom discourse, the pre-selection of indicators is intended to ensure the same evaluative framework for all three instructional contexts with criteria for comparison.

3.11 Summary

This chapter has provided a description of the predictability of characteristics of classroom discourse and has discussed the relevance of teachers' language in assisting language development. It has considered how questions operate in interaction with the learners and how teachers can at times limit opportunities for language output by learners by posing convergent questions that do not provide opportunities for language expansion. The chapter has presented how corrective feedback operates in assisting language development and how it can be made more effective in allowing repair by learners. It has also detailed previous observation protocols, with a description of their purposes and an outline of the selection of indicators included. The findings from these previous studies and the descriptions of how classroom discourse operates gave the researcher a template and a benchmark against which to set the data collected from the three instructional contexts investigated in this study. One objective of the study is to gather information on classroom discourse from three contexts and to investigate how teachers provide opportunities for language development.

During development of the OP, all of the previous OPs provided the researcher with aspects suggesting the inclusion of certain indicators. These include the relevance of the types of questions in discourse (Moskowitz, 1976), effective presentation of content (Echevarria, Vogt and Short, 2001), types of corrective feedback strategies that can lead to pupil output (Dalton-Puffer, 2007, Chaudron, 1977) and the combination of language and content in CLIL lessons (Lyster, 2007). The application of the OP will be discussed in the following chapter on the method of the study, which details how the OP was applied to registering teachers' strategies considered to be conducive to language learning.

Chapter 4 Method

4.1 Introduction

The study sets out to compile an inventory of didactical strategies considered conducive to language acquisition and found in teachers' classroom discourse in three instructional contexts. The didactical strategies are considered in relation to five aspects of language use. The first is the use of L1 or L2 in presenting content to pupils, the second is the use of L1 and L2 in interaction with pupils and the third is how teachers make input comprehensible to learners. This includes modifications and restructuring of teachers' language. The fourth aspect is the use of questions in eliciting output from learners and the fifth aspect is concerned with how teachers respond to learners' output in giving corrective feedback. The recorded lessons were analysed using an Observation Protocol which was specifically designed for the study and which collected qualitative and quantitative data. This chapter will give a description of the teacher participants from all three contexts, detail the indicators on the OP, describe the procedure for collecting the data and detail the method of scoring using the indicators.

4.2 Subjects

The corpus of classroom-based data for this study was collected from lessons given in years 1 and 3 at five secondary schools in the Netherlands. Four of the schools were regular secondary schools with a bilingual section within the school. One school was a regular secondary school with no bilingual section. Lessons were recorded from the CLIL contexts in the bilingual sections in four schools, the English support lessons given to the same pupils in the bilingual sections and from the mainstream English classes at the five schools. The teachers and lessons observed fell into three categories: sixty-nine CLIL lessons in bilingual streams of regular secondary schools given by thirty-eight teachers, fourteen English support lessons in the same schools given by eight teachers and eleven mainstream English lessons at the five schools given by nine teachers. Teachers were asked to allow lessons to be recorded that were representative of their teaching. They were informed that the recorded material was to be used alongside the data on pupil proficiency in a comparative research project on bilingual programmes and mainstream English programmes.

The CLIL teachers were also asked to complete questionnaires (Appendix II) covering information on the number of years they had been teaching in the bilingual stream and asking for their attitudes and opinions on aspects of teaching in a bilingual stream. Some of the teachers' answers were used in the study and are considered in the section on code switching in chapter five. The CLIL teachers participating in the study are from four bilingual streams.

Table 4.1

Number of subject teachers participating in the study at each school

School	Art	Bio	Drama	Geo	History	IT	Maths	Sports	Physics	RE
1	2	2	0	1	2	1	2	1	1	0
2	1	1	0	1	2	0	1	1	0	0
3	1	0	2	2	2	0	0	0	1	1
4	1	1	0	1	2	1	1	2	0	1

Geo = Geography
IT = Information Technology
RE = Religious Education
Bio = Biology

As can be seen from the table above, not all subjects are represented in all the schools. For example, Religious Education lessons were given in two of the schools and Drama was given only in school 3. The lack of uniformity in the number of lessons at the schools is not considered problematic as the objective of this study is to compile data enabling a comparison to be made between the three instructional contexts and the subject areas, and to identify effective linguistic strategies. The samples give sufficient data on teacher behaviour to accomplish an analysis relevant to effective instruction.

Not only does the number of lessons from school to school vary but also the numbers of teacher participants from school to school. School 1 provides lessons from twelve teachers, school 2 has seven teachers participating, school 3 has nine teachers in the study and ten teachers from school 4 contribute to the data.

The CLIL teachers from the four bilingual streams covered the subjects Mathematics, Biology, Physics, Art, Drama, Physical Education, Religious Studies, IT, History and Geography.

Table 4.2

CLIL subjects and number of lessons recorded at the 4 bilingual streams

School	Art	Bio	Drama	Geo	History	IT	Maths	Sports	Physics	RE
1	3	2	-	4	4	1	4	4	2	-
2	2	1	-	2	4	-	2	2	-	-
3	1	-	2	2	3	-	-	-	1	1
4	1	4	-	3	2	2	2	5	-	3
Total	7	7	2	11	13	3	8	11	3	4

Geo = Geography
IT = Information Technology
RE = Religious Education
Bio = Biology

The English support lessons recorded in the study were given to the pupils in the same classes as those observed during the subject lessons from the four bilingual streams and were the pupils who participated in the language proficiency tests. The number of support classes is fourteen, and they are given by eight teachers.

Table 4.3

Number of English support lessons in the study

School	Support classes
1	5
2	5
3	1
4	3
Total	14

The data on mainstream English teachers came from the non-bilingual sections of the four bilingual schools, plus one class from another control school. This gives a total of eleven mainstream classes given by nine teachers.

Table 4.4

Number of mainstream lessons in the study

School	Mainstream English lessons
1	4
2	2
3	2
4	1
5	2
Total	11

4.3 Observation Protocol (See Appendix I)

The classroom observations and the recording of teachers' strategies were accomplished by using an Observation Protocol (OP) specifically designed for this study. The development of the protocol involved the inclusion of a predefined framework of selected indicators based on theories from the field of second language acquisition, namely those related to the role of comprehensible input, pushed output and interactional language in the development of a learner's L2. The OP was developed to enable a profile to be built up for each group of teachers taking part in the study and to examine teachers' instructional and interactional oral language during the class. It was intended to record the number of occurrences of certain didactical strategies occurred during the lessons. The observations were used to categorize the didactical strategies employed, particularly those of CLIL teachers, and to ascertain any significant differences in the use of these strategies by CLIL teachers, support teachers and mainstream English teachers. The teacher input was analysed for dialogic interactional events which involved corrective feedback to the learners.

The selection of indicators to include on the OP was made with reference to two main sources. The first source was the work done with existing OPs with a view to the specific context of the study and the second source was research in the field of SLA on effective instruction. A review of previous OPs considers which indicators are relevant to language acquisition and forms the theoretical underpinning for the selection of indicators for the OP used in this study. Factors in teaching that are considered to be conducive to second language acquisition guided the selection of the indicators Research into effective

classroom practice relevant to SLA and protocols for classroom-based observations were accordingly considered by this researcher.

The Observation Protocol for this study was developed to produce qualitative and quantitative scores on the lessons in the three contexts. The qualitative data is related to the task type, to the language level of the teacher, to how teachers used L1 and L2 and to a holistic score based on teacher competences. The quantitative data is related to the frequency of occurrence of certain indicators, which were predetermined and preselected on the basis of two sources: other observation schemes and the results of studies on effective instruction in language teaching. Allwright and Bailey suggest that classroom observations can provide a description of actions giving some insight into behaviours that may be relevant to language acquisition (1991:14) and this study aims to add to previous descriptions of classroom behaviour by analysing the teachers' classroom discourse and to provide some further insights into whether the classroom discourse in CLIL and language lessons reveals different patterns relevant to SLA. As Allwright and Bailey suggest (1991:37), new research into classroom activities does not so much test theories as help to develop them.

The Observation Protocol (OP) (Appendix 1) is divided into three parts and was developed as the tool for generating data on the observed lessons. The first part of the OP records details of lesson and task organisation. The second part gives three qualitative scores for teachers' language and classroom actions, and part three gives quantitative scores for frequency of didactical strategies.

The indicators on the Protocol were selected on the basis of their relevance to the five aspects of discourse as stated above. The indicators were grouped on the OP in accordance with these categories and provided the data used in the analysis to compile a profile of classroom practice, which includes the number of occurrences of the strategies plus the qualitative data. The didactical strategies can then be related to effective instruction considered conducive to second language learning. In this way the possible role that teachers have in promoting and fostering pupils' language proficiency can be assessed. This facilitates a comparison between all three contexts to address the research question of whether context affects the frequency and quality of strategies.

Part 1

The first part of the OP details the subject lesson, the class organisation, the specific topic of the lesson, the skills and language focus and the task type. These are relevant variables in a classroom and are factors affecting diversity in the amount of interactional language occurring in the lesson. For example, a task type where a pupil is involved on working on an individual assignment, such as during an art lesson, which is not generally a teacher-fronted lesson, will result in a different type of classroom discourse than a task requiring pupils to work in pairs in a more task-based learning situation, such as problem-solving or preparing in pairs or small groups for a class presentation. The former is less likely to include teacher intervention or teacher input. A lecture-type presentation by the teacher would be more likely to produce classroom discourse of longer periods of monologic teacher talk with the accompanying question forms either to elicit answers from pupils or to check their comprehension.

Part 2

This section of the OP records scores related to three aspects of teacher behaviour. The first is related to the amount of use of L1 and L2, the second score is a holistic score of assessed competence in didactics and the third score is an assessment of the teacher's language proficiency level based on the Common European Framework of Reference (CEFR).

The first set of data relates to the level of code switching that occurred during lessons. The amount of L1 and L2 was assessed and each lesson was assigned a score using a scale of 1 to 4. Scores were based on the estimated amount of time each of the codes was used during the lessons. Every time a code switch was observed, a check was made on the OP and a score given based on the number of checks. A low score of 1 indicates that the teacher uses both L1 and L2 in similar amounts. A higher score of 2 is given when the use of L2 is higher than L1 and when L1 is used frequently. A higher score of 3 is given when the teacher occasionally uses L1 but most of the discourse is in L2, and a high 4 is given when the teacher uses only L2 and no L1. This gave a band in which the teacher could be placed to indicate the level of use of both codes. The qualitative scores for use of L1 and L2 covered two areas; one was the use of both codes in presenting content and the second was the code use in interactional dialogue.

The amounts of L1 and L2 teacher-talk in procedural language and in the presentation of content were assessed. Procedural language refers to language not directly relevant to the lesson content. Examples of this type of language are that used in giving instructions and language used during classroom management. Presentation of content is generally given in lecture mode when the teacher is likely to be reviewing previously taught material or presenting new texts and topics. During these stretches of discourse the teacher is the main speaker, giving explanations and elaborations on content material. At times the teacher may switch from L2 to L1, and it is the function of these switches that is the object of analysis here. The instances of code switching are investigated to assess whether the three contexts share common characteristics and to investigate whether there is a correlation between code switching and particular areas of language use.

The second area of language use assessed for the amount of code switching is the language occurring during dialogic and interactional talk with learners. This type of talk can be discourse arising when a learner indicates a lack of comprehension or has a query about the meaning of the content. It is also the language code used in giving corrective feedback or comment on pupils' comprehension. Feedback of this kind is a relevant factor in the development of L2 skills, as it provides learners opportunities to notice mismatches between target language models and their own utterances. The data on L1 and L2 in interactional talk is analysed to identify patterns of linguistic behaviour and the use of linguistic strategies that are considered conducive to second language development. Analysis of the collected data from the three contexts informs us of the level of code switching by the teachers from L1 to L2 or vice versa. Not only the amount of code switching is investigated, but also the linguistic context in which the switch is made. Are there certain areas of language that the teachers habitually present in L1 or L2? And can we identify in the switches any patterns relevant to the instructional contexts?

The second data source is a holistic score assigned to the teacher on the basis of observed behaviour relevant to pedagogical competences. The researcher is an experienced teacher

trainer whose work involves assessment of student teachers in the classroom situation on the basis of teacher competence criteria developed by the SLO (2005) in the Netherlands, an organisation concerned with establishing these specific criteria. The competences considered in the OP were based on the SLO list and included the observed interpersonal relationship with the learners, the level and amount of linguistic interaction between teacher and pupils, the appropriacy of tasks and the observed interest level of the pupils observed during these tasks, and the demonstration by the teacher of a variety of pedagogical and didactical strategies during the lesson. The scoring procedure used a range from 1 to 3, with 3 as a high score indicating a positive assessment.

A third score was given for the teachers' language level which was assessed and scored in accordance with the A, B, C levels of the CEFR. This was achieved by considering the categories of an independent user and a proficient user of the language, in particular the illustrative descriptors included under the 'can-do' statements for spoken interaction and spoken production. This gave an indication of the teachers' spontaneity and flexibility in responding to learners' queries and the ability to paraphrase. The qualitative aspects of the CEFR descriptors of range, accuracy, fluency, interaction and coherence were considered when assigning a grade for language proficiency.

Part 3

The indicators in Part 3 of the OP were selected according to certain criteria relevant to SLA for the areas of language mentioned above and covered three aspects of interaction. The first considers how teachers provide for comprehensible input of content and how they modify their own output. The second set of data relates to the questions teachers asked and the way they elicited output. The third set of indicators covered the gamut of techniques that are subsumed under the umbrella term of corrective feedback.

Modifications, expansions and elaborations are made to teacher talk in order to make input comprehensible to learners. The data for the study revealed that some of these actions were taken subsequent to the teacher's inference that input was not understood. Modifications also occur in response to a direct query from a learner indicating that the content was not understood. There were also opportunities taken by the teachers to add to and expand their own utterances to provide additional input. This study will not address how much of this type of feedback induces uptake by the learners and becomes part of their long-term linguistic resources. The study is concerned with the teachers' use of such strategies and the context in which they occur. The data was analysed to identify whether differences are observable in the three contexts and to see whether the strategies elicited immediate responses from learners.

A common feature of most classroom discourse and interactional exchanges with learners is the posing of questions. The second set of data measures the frequency of teachers' question forms, the types of questions and their efficacy in eliciting output from learners. Questions can be seen as a mode of controlling and guiding the discourse in several ways. The teachers' checking of understanding will involve the use of questions to assess the learners' level of comprehension. Questions allow the teacher to maintain the focus of the lesson on the teaching objectives, and in language classes will give learners opportunities for practice and production. Divergent or open question types may elicit more elaborate and extended answers from learners, while convergent or closed questions may limit the output possibilities. The study investigates identifiable differences in the three contexts and the linguistic environment in which the questions are posed.

The data records nine areas of corrective feedback given in the lessons. Firstly, feedback can be given in the form of explicit modelling of the correct response to the learner. The second area of feedback recorded in the data is that of recasts, a form of implicit correction, which can be followed, or not, by a repair by the learner. Another form of feedback technique is that of giving metalinguistic comments which focus on morphosyntactical aspects of language. The feedback can be given in the L1, generally with a translation of the L2 terminology. A fourth feedback technique is metalinguistic feedback in L2, providing learners with comments and explanations on morphosyntactical aspects. The fifth category relates to the feedback given during confirmation or clarification requests from the teacher. This requires the learner to reiterate the answer after a query made by the teacher indicates that a part of the utterance does not meet the target language model. If the learner provides no reiteration, the teacher may elicit the response from the rest of the group, probably in the expectation that the learner will notice the answer from his peers. Eliciting from the group is the sixth aspect considered in the study. Two other feedback techniques investigated in this study are the occurrences of teachers' summaries of the learner's response and teachers' modifications of answers. These two techniques provide the learner with additional input and language models which may or may not be added to his linguistic resources to be called upon in future utterances. The last of the nine techniques that is considered in the list of corrective feedback actions is the use of teacher-prompts. These are occasions when a teacher assists the learner to produce an utterance by providing a prompt in some way. This can be a phonological prompt or an unfinished sentence acting as an aid to retrieval of presumably known language.

4.4 Procedure

The intention was to record two lessons per teacher during the school year; one at the beginning of that school year and the second towards the end. This was regarded as preferable to sampling just one lesson, albeit that it still covers a very small percentage of the teacher's total output of classroom discourse. As a way of counterbalancing this aspect, the teachers were asked to select and record lessons that they felt were representative of how they generally conducted their classes. As it proved to be logistically difficult in some cases to organize the recording of two lessons per teacher, a few teachers ultimately provided only one recording.

During recording the camera was at times static in a corner of the room with no additional adult operating it. At other times it was operated in the classroom by another teacher in the school or by a member of the research team. The presence of a camera during a lesson will undoubtedly affect the behaviour and actions of both pupils and teachers, and at times it seemed clear from the recordings that they were all aware of its presence. This was manifested by pupil behaviour in front of the camera and by teachers' comments about how pupils should behave in front of it. Nevertheless, as the CLIL classes were recorded in all their subject lessons and filmed on several occasions, pupils in the classes filmed towards the end of the year were apparently more used to the camera being in the room than at the beginning of the year. This manifested itself by the pupils seeming to ignore the camera or by accepting its presence. It is difficult to judge whether the presence of a camera affected the teachers' choice of didactical strategies, but as they were asked to select lessons that they felt would be representative of their classroom behaviour, those lessons can be assumed to be typical of their classroom approach.

The teachers were informed that the data would be used to look at differences between the three types of instructional environments, but were not informed that the data would be analysed for strategies conducive to second language acquisition. Teachers were not directed to give a particular type of lesson, but to give lessons that were representative of their regular teaching. In this way, it can be assumed that the collected data reflected the pedagogical options typical of their individual teaching styles. In a few cases the cameras' sound recording capability was insufficient to pick up all the pupil comments and responses, particularly if several pupils were speaking simultaneously. As the focus of the study is on the teachers' strategies and the teachers' comments are audible in the recordings, it was still possible to analyse the classroom discourse and to allocate teachers' utterances to the appropriate categories on the OP.

4.5 Registering strategies

The OP was used for registering occurrences of the pre-selected indicators. Each recording was watched as many times as was necessary to record all the relevant occurrences. Each recording was watched by both the PI and one of the assistants as many times as was necessary to record all the relevant occurrences. Inter-rater reliability was strong with correlations on 10% of the data between .87 and .99.

Before using the OP to analyse the lessons, the assistants attended several training sessions given by the PI in order to establish a degree of consistency among the raters. Sample lessons were taken and observed by all raters, followed by a comparison of the results of the observations. Discrepancies between the number of observations were discussed, and the recording played again. When the PI was satisfied that all the assistants were following the same procedure of analysis, each assistant was allocated a number of the recordings to analyse using the OP.

On average the films were played four times in order to register all the relevant information. Each film was played with the OP laid out in front of the observer. The first time of playing, the observer noted the relevant actions in order to complete part 1 of the OP. This gave information about the lesson topic and the type of task set by the teacher. At the same time the observer made an initial assessment of the CEFR score to be assigned to the teacher and also made an initial assessment of the holistic score that would be assigned to that teacher.

The recording was then played again, and this time the objective was to commence with the completion of part 3 which related to the frequency counts of teacher strategies included in the areas listed above. The observer stopped the tape when one of the indicators was observed and registered the occurrence with a check by the relevant indicator. This section was replayed to confirm the registration and also to transcribe the teacher's utterances and to note the linguistic context in which they occurred. At times the utterances were in response to a query, or could be categorized as an initiation move or a code switch. The relevant linguistic context was transcribed and noted on the OP. The transcriptions were coded with T when the teacher spoke and P when a pupil spoke. In longer passages of transcription involving more than one pupil the code was P1 for the first pupil who spoke and P2 for a second pupil involved in the interaction. At times the observers thought it necessary to replay the recording to gain a complete picture of how the discourse proceeded and to assess the teacher's language proficiency level.

To ensure conformity in the counting of dialogic instructional language events, a specific definition of a language event was established. In the literature a language event can be counted from various perspectives. Dalton-Puffer (2007:33) takes as a starting point for the analysis of CLIL classroom discourse the model of Speech Events and Pedagogical Exchanges based on Sinclair and Coulthard's work on conversational analysis (CA). Other systems have also been proposed to describe a language event. Musumeci (1996:304) employs the term 'language episode' on the basis that when one speaker stops and another interlocutor responds the turn is deemed to have been completed and is counted as one episode. If a speaker speaks and no response ensues, after which the speaker then continues, this is deemed as one episode – an extended episode.

Although these models provided some framework for a definition of a dialogic event, the data in this study revealed that Initiation moves were sometimes made without resulting in a Response move. For the purposes of this study, an Initiation move that resulted in a non-response was counted as one occurrence of a move and was recorded on the OP as an attempt to elicit an answer from the learners. If another attempt was made by the teacher, this was then counted as a second event and checked on the OP as such. On some occasions this second attempt was a reformulation of the first move, a repetition of the same move, or even an abandonment of the Initiation. At other times, it led to the teacher modifying his own spoken syntax through the use of revised syntax or synonyms and paraphrase. This mode of recording language events and moves on the OP ensured consistency in the scores.

Three areas of didactical strategies were assigned a quantitative score; provision of comprehensible input by modifications and elaborations, eliciting output through questions and giving corrective feedback. The qualitative and the quantitative scores from the three parts of the OP provide the data for analysis.

4.6 Summary

The study is primary research: a naturalistic enquiry with original data taken from three non-interventionist and non-controlling contexts. It is interpretive in that it analyses data collected from classroom observations from three different classroom contexts, namely CLIL teaching, English support and English mainstream, to compile descriptions of instructional practices. The CLIL teachers are the largest group of teachers in this study with 69 lessons recorded and analysed. The lessons from the three contexts were analysed for occurrences of teachers' strategies that are considered to be conducive to second language learning. In addition to these analyses, the data includes a description of the task type, a score of the teachers' language proficiency and a holistic score based on teaching competences. The objective of this study is to compile, by using an OP, a comparative description of classroom practice related to how teachers' classroom discourse presents opportunities for learners' language development.

Chapter 5 Findings on the use of L1 and L2 in teachers' classroom discourse

5.1 Introduction

In second and foreign language teaching contexts, the effective use of the L1 and the L2 in input is a discussion reflected in various methodologies and approaches, with some, such as the Direct Method, advocating sole use of L2 during instruction. Communicative Language Teaching is another approach that argues for a high level of the use of L2 in classroom discourse with an emphasis on the application of language in meaningful and naturalistic context. The communicatively meaningful context of CLIL programmes certainly falls into this area of meaning-based learning where the teaching of the content subject matter is the instructional objective. In the immersion and CLIL concept of content teaching, the L2 is considered a source of effective language input for learners: this is achieved by demonstrating models of lexical use and morphosyntax through the teaching of content. L2 is advocated as the medium of presenting the content, in accordance with the notion of exposure to language as a prime factor in language acquisition. This, together with comprehensible input, should provide an optimal linguistic environment for learners' progress in SLA.

The study sets out to assess how much talk in the lesson is conducted in the respective codes and to investigate whether teachers' code switching is random or systematic. This chapter deals with two aspects of code switching. Firstly, the code used in procedural language and presentation of content is investigated and secondly, the code used in dialogic interaction in corrective feedback episodes. Each lesson is assigned a qualitative score for the use of the L2 in both these areas. The scores are based on a rating ranging from 1 to 4 and assigned as explained in the previous chapter.

Indicators 1 and 2 on the OP were used to record the amount of code use for the first score in procedures and content presentation. This gave a score that indicated the code used in classroom routines, instructions to pupils and in the presentation of content in longer stretches of discourse. Indicators 3 and 4 were used to record the amount of code use in more meaning-focused interaction. These second scores indicated the code used in interactional dialogue with pupils in negotiation of meaning, checking comprehension, modifying discourse and giving corrective feedback. This chapter presents the findings on code use in the three instructional contexts.

Table 5.1
The section from the OP relevant to code use

	Rating	Examples from CD
1. L1 in classroom routines, instructions and presenting content		
2. L2 in classroom routines, instructions and presenting content		

3. L1 in interactional dialogue		
4. L2 in interactional dialogue		

5.2 Code switching in procedural language and presentation of content in CLIL classes

The data on the CLIL classes was collected from 69 lessons from four schools. In all four schools there were classes with a high rating of 4 indicating the sole use of L2 in the lessons and few classes with a low rating. The ratings 3 and 4 indicate a high use of L2.

Table 5.2

Bilingual schools and the lesson ratings for use of L2 in procedural language and presentation of content

School	No. of lessons	No. of lessons rated 1	No. of lessons rated 2	No. of lessons rated 3	No. of lessons rated 4	% of lessons rated 3 & 4
1	24	1	-	15	8	95
2	13	1	1	3	8	84
3	10	-	-	6	4	100
4	22	1	2	12	7	86
Total	69	3	3	36	27	

The results from School 3 show that all the CLIL classes have a high use of L2 in lesson procedure and in presentation of content. The other 3 schools show that most of the lessons have a high rating of 3 and 4. These high ratings indicate that the CLIL teachers demonstrate a positive attitude to a consistently high usage of L2. This is corroborated by the results of the questionnaire given to CLIL teachers which assessed their attitudes to various aspects of bilingual teaching and to code use in the classroom.

Table 5.3

CLIL teachers' responses to statements on bilingual teaching

1	Pupils in the bilingual classes must always speak English to the teacher.	1,37
2	The CLIL teacher must speak only English to the pupils during the lessons.	1,47
3	It is important the pupils use only English even when their output is not 100% correct.	1,58
4	During the lessons pupils in bilingual classes must speak only English to their classmates.	1,63
5	It is important to use lesson material that has been specifically developed for bilingual programmes.	1,95
6	The CLIL teacher should speak English to pupils at all times. This means during the lessons and outside the classroom.	2,16
7	The role of the CLIL teacher is primarily that of a subject teacher.	2,21
8	The most important aim of bilingual education is that pupils achieve a high level of proficiency in English.	2,37

9	Rules of grammar in English should be explicitly explained.	2,42
10	Learning vocabulary is the most important aspect of second language learning.	2,42
11	When assessing pupils' work the CLIL teacher should give a separate grade for language proficiency.	2,89
12	Pupils need to master listening and reading skills before producing language.	3,11

Table 5.3 shows the teachers' responses to the questionnaire. Teachers were asked to grade twelve statements according to a Likert scale of 1 to 5, ranging from strong agreement to strong disagreement with the statement. A score of 1 indicates a strong agreement with the statement. The results confirm that teachers strongly agree that L2 be used at all times during the lessons and that pupils are to be encouraged to use English at all times during the lesson even when not completely accurate in their output. The data shows a high use of L2 in the vast majority of the lessons recorded, with most of the CLIL teachers encouraging and supporting pupils' use of L2 in responses. In addition to the findings showing that all 4 schools have a high level of L2 use in procedural language and in the presentation of content, the data was analysed to investigate if the subject of the lesson was a variable in the amount of L2 used in the teachers' classroom discourse. The following table shows the breakdown of subject lessons assigned a rating of 4 indicating 100% use of L2 in the lesson.

Table 5.4

CLIL lessons with a high rating of 4 in L2 use in procedural language and presenting content

Subject	Total no. of CLIL lessons	CLIL lessons rated 4	% of classes rated 4
Art	7	6	85
Biology	7	1	14
Drama	2	1	50
Geography	11	4	45
History	13	5	38
Information Technology	3	1	33
Maths	8	3	37
Physical Education	11	2	18
Physics	3	1	33
Religious Education	4	3	75
Total	69	29	

As can be seen from table 5.4 the Art classes score highest in the use of L2, with 85% of them showing L2 as the sole code in presenting content. While this may be of some interest, we need to consider not only the lessons where L2 is used exclusively but also those other lessons that have a high use of L2 with occasional uses of L1. The number of CLIL classes which were given a rating of 4 is 40%, but when lessons with a score of 3 and 4 are included this reveals a more representative and realistic picture, with the number of classes showing high levels of L2 in classroom discourse increasing from 40% to 91% of the lessons.

Table 5.5

CLIL lessons with ratings of 3 and 4 in L2 use in presenting content

Subject	No. of CLIL lessons	CLIL lessons rated 3 & 4	% of classes rated 3 and 4
Art	7	7	100
Biology	7	6	85
Drama	2	2	100
Geography	11	11	100
History	13	11	84
Information Technology	3	2	66
Maths	8	8	100
Physical Education	11	9	81
Physics	3	3	100
Religious Education	4	4	100
Total	69	63	

The results confirm the expectedly high level of L2 by most CLIL teachers in presentation of content and in procedural language, thus adhering to the basic principle of CLIL methodology. It is of interest to investigate the occurrences of code switching to establish whether any patterns of behaviour are discernible.

Two biology classes with the same year 1 group show a major difference in code use. The class recorded at the beginning of the school year had a low level of 50% of L2 use in presentation of content. This resulted in the recording of an average percentage of less than 90% in the overall score for L2 code use in the Biology lessons. When the possible cause of this observed discrepancy was sought, it was noted that the second lesson, recorded later in the year, had a higher level of L2 use. It involved the same group of pupils but with a different teacher and scored 90% for use of L2 in these same areas. It may be that the dual code policy for the first part of the school year played a part in this different result. Moreover, it might have been the teachers' choices and decisions made in the class that resulted in the difference in code use. Other subject lessons worthy of note are the Physical Education lessons in which, although three of the classes had 100% of L2 use and rated a 4, two other classes were rated 2 and 1 respectively.

Table 5.5 above shows subject lessons assigned a high score for L2 use in procedural language and in presentation of content. Tables 5.6 to 5.9 show a breakdown of ratings for language use in all 4 schools. School 2 has the highest percentage of teachers with a rating of 4 (Table 5.7), and of the 7 CLIL teachers four are native-speakers of English and three teachers have a language proficiency level of C1.

Table 5.6

CLIL classes in school 1 with ratings for L2 in procedure and presentation of content with holistic score s and scores for language proficiency

Subject	Rating for L2 use	Teacher identity	Holistic score	Language level
Art	4	1A	3	C1
Art	4	1B	3	C1
Physics	4	1J	3	C1
History	4	1F	1	B2
Biology	3	1D	3	C1
Geography/History	3	1E	2	B2
IT	3	1I	3	C1
Maths	3	1G	2	B2
Maths	3	1H	3	B2
PE	3	1K	3	C1
Biology	2	1C	3	C1

Table 5.7

CLIL classes in school 2 with ratings for L2 in procedure and presentation of content with holistic scores and scores for language proficiency

Subject	Rating for L2 use	Teacher identity	Holistic score	Language level
Art	4	2A	2	NS
Geography	4	2C	3	NS
History	4	2E	3	NS
PE	4	2G	3	C1
Biology	3	2B	3	NS
Maths	3	2F	2	C1
History	2	2D	1	C1

Table 5.8

C*LIL classes in school 3 with ratings for L2 in procedure and presentation of content with holistic scores and scores for language proficiency*

Subject	Rating for L2 use	Teacher identity	Holistic score	Language level
Art	4	3A	3	C1
Drama	4	3B	3	C2
Geography	4	3E	3	C1
Drama	3	3C	3	C1
Geography	3	3D	3	C1
History	3	3F	3	C1
History	3	3I	3	C1
Physics	3	3G	3	C1
RE	3	3H	3	C1

Table 5.9

CLIL classes in school 4 with ratings for L2 in procedure and presentation of content with holistic scores and scores for language proficiency

Subject	Rating for L2 use	Teacher identity	Holistic score	Language level
Biology	4	4B	3	B2
Maths	4	4F	2	C1
RE	4	4K	3	C1
Art	3	4A	1	B1
Geography	3	4C	2	B2
History	3	4D	2	B2
IT	3	4E	2	B2
Physical Education	3	4I	3	C1
Physical Education	3	4J	3	C1
Physical Education	3	4G	2	B1
Physical Education	2	4H	3	C1

As stated above, the number of CLIL lessons where L2 was the sole code in teachers' CD dealing with these aspects of language was 41%. While this might appear to be on the low side, the occurrences of L1 in the remaining 59% of lessons were at times minimal: e.g. translation of a lexical item, which seems to have been done to enable the teacher to maintain the flow of the lesson. Other code switches occur when an instruction is given which the teacher may have considered not necessary or relevant to the grasping of subject content and could therefore be given in L1. There were numerous examples of code switches from L2 to L1 when explaining procedures for checking answers to text book exercises, as in the following example taken from a year 1 Biology class where the L2 code use for procedural language is a low 2. The teacher wants to check the homework exercise done by pupils.

> T: *Shall we take a peek to ..at the homework?*
> [No response from pupils. The teacher seems to take this as an expression of non-comprehension and translates into L1.]
> T*:* Zullen we even kijken naar het huiswerk?*

Other types of code switches in procedural language are often initiated by pupils when asking for clarification of content that will feature in tests and in asking about the marking systems they can expect. In some cases, teachers will respond in L1 as in the following example: both teacher and pupils seem to accept the preference for a switch from L2 to L1 in order to ensure that queries and instructions are clear and understood by both parties.

In the following example a pupil is concerned about whether answers to test questions need to be written in the L1 or the L2 and uses L1 to request clarification from the teacher. The teacher first gives her reply in L1 and then switches to L2 at the end of the reply. The first part of the reply in L1 is a clear answer and by stating that she prefers pupils to make mistakes in English rather than writing in Dutch: the teacher is expressing her preference for a test answer written in English, even if it is morphosyntactically incorrect.

T: **Ik heb liever dat je wat fouten in je engels hebt dan dat je in het nederlands schrijft. OK? Give it a try*
[Translation]
T: I would rather that you made mistakes in English than write in Dutch. OK?]

Her last remark "*Give it a try*" given in the L2 seems to function as an encouragement to pupils, but the first part of the utterance is an instruction that needs to be understood by pupils and conveys a message on how to carry out the test, so it is given in L1.

Another pupil requires more clarification of the teacher's expectations and checks the marking procedure for when an incorrect answer to the question is given. The teacher explains in L1 that points will be deducted for a wrong content answer and adds that points depend on how difficult the question is: the more difficult the question, the more points are awarded. The exchange is in L1 with a code switch to L2 at the end of the exchange, involving a translation into L2 of the last comment in the L1 exchange.

P: **en als je een fout antwoord geeft…?*
T*: *Ja…dan gaan dan natuurlijk punten vanaf. Ja… je krijgt per vraag een aantal punten….Hangt van de vraag af. It depends on how difficult the question is.*

[Translation]

P: And if you give a wrong answer?
T. Well. ..then you lose a point of course. Yes..you get for each question a number of points..it depends on the question.

In the following example in a year 1 Geography lesson the teacher is reading out the instructions in a book written in L2 and then translating phrase-by-phrase into L1.

T*: read along.*.lees mee*

T: *.. between brackets ..*tussen haakjes*

This type of parallel discourse during episodes of procedural language accounts for some of the occurrences of code switching in the CLIL classes. At times it is teacher-initiated, and at other times initiated by pupils when checking on test and activity procedure. Much of pupil initiation in CD interactional talk falls under this category of checking procedure rather than posing questions and raising queries about content and subject matter.

A year 1 biology class in which the teacher uses a high amount of both L1 and L2 in procedural interaction is a lesson which consists largely of teacher presentation of content and takes place three months into the bilingual programme. A factor in the extensive use could be that this lesson occurred so early in the programme, and that the school policy allows the use of both English and Dutch in the first few months. The lesson starts with a general comprehension-checking question in L2 from the teacher after one pupil explains that she has not done her homework, because she did not understand the text. He asks the following in L2:

T: *Who else has problems with just understanding the text? I don't talk about the subject but the text itself.*

Ten pupils indicate that they had problems with the text and there then follows an interactional sequence with pupils and teachers initiating comments in L1 and L2 about the difficulties some pupils had in processing the language aspects of the text. The discussion refers to lexical content words, more difficult lexis in English and how the pupils dealt with this. The teacher explicitly confirms that pupils encountered a problem with the language in the text and not with the content concepts, adding:

> T: *Up until Christmas it's not a problem if you use some Dutch words. After Christmas it's all English.*

This is followed by an extended interaction between the teacher and the pupils about the problems of understanding the text and also about the strategies pupils can employ to assist their comprehension of the text, with comments from both teacher and pupils about the problems facing bilingual learners. Interestingly this section of the interaction was carried out in L2 with a high level of input from pupils, at times with a high level of accuracy, about the difficulties of understanding texts in English. The teacher notes one pupil's remark that when her parents translated the text into Dutch she understood the content, while another comments as follows:

> P: *The biological words weren't that hard because they are explained in the text but sometimes there were just difficult English words in the description of the biological wo..words.*

Some teachers' code switching in procedural language seems to occur in less formal interactions which do not carry any content message, as shown in the next example: the teacher has been consistently using the L2 in the presentation of content and is then informed by a pupil of an abbreviation for a term in geography. In replying the teacher acknowledges that this is new information for her and then switches from L2, giving an L1 translation of her response.

> P: *and it is d...a…m*
> T: *Thank you I didn't know that abbreviation. *Ik wist de afkorting niet. I think that is the right abbreviation. ..*de goede afkorting hiervoor.*

Additional occurrences of code switching in CLIL classes are the very few occasions where teachers seem to be acting outside the didactical framework of classroom language and engage in more interpersonal exchanges, such as instances of reprimanding pupils' behaviour. In one class the CD contains instances of reprimand in L2, which seems to be the teacher's preferred code in these instances, but as the lesson continues it appears that the teacher's frustration increases and leads to a switch to L1 for reprimanding pupils.

5.3 Code switching in procedural language and presentation of content in English support classes

The data bank of CD in English support classes in bilingual schools consists of 14 lessons at four schools, with lessons conducted by 7 teachers, 5 of whom are native speakers and two are non-native speakers of English, teaching 8 third-year classes and 6 year 1 classes. Tale 5.10 gives a breakdown from the four schools, with the ratings from 1 to 4.

Table 5.10

English support lessons with ratings for use of L2 in procedural language and presentation of content

School	No. of lessons	No. of lessons rated 1	No. of lessons rated 2	No. of lessons rated 3	No. of lessons rated 4
1	5	-	-	1	4
2	5	-	-	-	5
3	1	-	-	-	1
4	3	-	-	1	2
	14	-	-	2	12

Twelve classes revealed a 100% use of the L2 and only two revealed isolated instances of change of code. Table 5.11 gives details of the holistic score, the rating for the teachers' language levels and the ratings for L2 use. The data shows no consistent correlation between the holistic score and the rating for L2 use. For example, the lessons given by teacher E are given a rating of 4 for 100% use of L2 in presentation of content and the holistic score is 2. Teachers who are given a high holistic score do not score in all cases a 4 rating for L2 use.

Table 5.11

English support classes with holistic scores and scores for language proficiency and rating for L2 in presentation of content

School	Teacher identity	Holistic score	Language level	Rating for L2 use
1	ES1D	3	NS	4
1	ES1D	3	NS	4
1	ES1C	3	C2	4
1	ES1C	3	C2	4
1	ES1C	3	C2	3
2	ES2G	3	C2	4
2	ES2G	2	C2	4
2	ES2E	2	NS	4
2	ES2F	3	NS	4
3	ES3H	3	C2	4
4	ES4A	3	NS	3
4	ES4B	3	NS	4
4	ES4A	3	NS	4

In one lesson the teacher reinforces several times the policy of sole use of L2 by pupils for all aspects of classroom discourse. During this same class the teachers uses L1 in only one utterance when reprimanding two boys and getting their attention. The teacher continues in L2 for the remainder of the lesson.

P: [makes a comment]
T: *Was that Dutch?*
P: *But I repeated what someone said.*
T*: But it was Dutch wasn´t it?*

5.4 Code switching in procedural language and presentation of content in English mainstream classes

In the control group of mainstream English classes, eleven lessons were observed of which seven are 1st year classes and four are year 3 classes. The classes were from five schools; four were non-bilingual sections in schools with a bilingual stream and one school is a regular secondary school.

Table 5.12

Mainstream English lessons with ratings for use of L2 in procedural language and presentation of content

School	No. of lessons	No. of lessons rated 1	No. of lessons rated 2	No. of lessons rated 3	No. of lessons rated 4
1	4	-	-	4	-
2	2	-	-	2	-
3	2	1	-	-	1
4	1	-	-	1	-
5	2	-	-	2	-
Total	11	1	-	9	1

In the area of code switching and the use of L1 and L2 in procedural language and stretches of discourse for presentation of content, the data reveal a more varied pattern than that of the English support classes where teachers demonstrate an almost 100% use of L2 in this category. The teachers in mainstream classes, however, demonstrated a more diverse approach to their code usage in classroom discourse. The table below shows the ratings for L2 use and information about the holistic scores and the teachers' language levels.

Table 5.13

Mainstream English classes with holistic scores and scores for language proficiency and rating for L2 in presentation of content

School	Teacher identity	Holistic score	Language level	Rating for L2 use
1	MS1F	3	C2	3
1	MS1F	3	C2	3
1	MS1G	3	NS	3
1	MS1H	3	C2	3
2	MS2C	1	C2	4
2	MS2C	1	C2	1
3	MS3D	2	C2	3
3	MS3E	2	C2	3
4	MS4I	2	C1	3
5	MS5A	3	NS	3
5	MS5B	3	C2	3

A year 3 class with a low level of teacher language input and little presentation of content is the one class where no L1 was used by the teacher in giving instructions or presenting content. This level of L1 therefore may have been as a result of a general low level of interactive discourse, thus not necessitating or requiring further explanation or presentation of content by the teacher. In other words the level of L1 use was attributable to the low level of discourse in general, not to a high level of the use of L2. The lesson

consists of a reading aloud activity performed by the pupils, followed by an individual written comprehension exercise with no individual help from the teacher. The teacher uses L2 100% of the time in the classroom procedures while pupils were able to respond in L1.

T: *what have you been doing?*
P: **niets* [translation: nothing]
T: [no response

In this same class there are several occurrences of the use of the L1 during meaning-focused language, but this is because the questions in the exercise in the course book are in Dutch and these are repeated by the teacher while doing the exercise in class. This is not teacher-initiated language and is not counted in the OP as teacher presentation of content. At all other times the teacher uses L2 when interacting with pupils but learners are allowed to answer in the L1.

The same teacher was assigned a lower rating of 2 in the year 1 class, indicating that the teacher's choice of code could have been based on the year level. The lesson with the year 1 pupils is more interactive and produces more output from the teacher and the pupils. A high level of L1 is used in classroom management aspects such as reprimanding pupils and giving comments on behaviour, interspersed with occasional similar comments in the L2.

T: *Turn around…OK go ahead.*

Further examination and analysis of instances when the codes are used in procedural language reveal a varied pattern of usage, with highly interactive classes showing a high level of code switching, whereas less interactive classes sometimes involve fewer occurrences of code switching and a high level of use of L2. One class is a data-rich 1st year class with a high level of interactive classroom discourse between teacher and pupils. Most of the discourse is teacher-initiated and teacher-controlled. The procedural language is a mix of codes, with most utterances dealing with classroom management in L2, plus occasional utterances in L1. Most are given in the L2 such as:

T: *I'd like to check exercise 40..we didn't check that yet.*
T: [to a boy who needs to leave the class] *OK Luca..off you go.*

In other lessons there are isolated instances of code switching in procedural language with examples of utterances in L1, as in the following example:

T: [telling pupils to take out their diaries in order to write down the homework]
**Pak je agenda.*

Another variant on the use of the two codes in procedural language is demonstrated by a year 3 class, where the teacher shows a low level of L1 use in procedural language, starting the lesson with instructions in the L2.

T: *I want your attention please. As you can see on the board…*
T: *I didn't give you a turn so please be quiet.*

During the course of the lesson the teacher continues to use the L2 for individual comments to pupils when checking their comprehension and commenting on their achievements. There is some code switching when reprimanding pupils, and this occurs occasionally mid-sentence. The teacher was given a holistic rating of 2 and a rating of C1 for language proficiency. These scores may have been a factor in the constant switches, as the pupils did not appear to be completely engaged or on task. Moreover, the rater's subjective comment was that the teacher appeared to be hesitant during incidents requiring classroom management, resulting in mixed coded utterances.

> T: *where are your pictures? *Je hebt het over mijn gesprek met X ..You start working now.. if you don't you have a big problem.*
>
> T: *Did I ask you to* overleg met Bert?*
>
> T*:* Je gaat luisteren naar je weather forecast.*

The teacher continues using mostly L2, with occasional comments and instructions in L1.

5.5 Code switching in interactional discourse in CLIL classes

This section considers the use of the two codes in interactional talk where the focus is on meaning and comprehension of language relevant to content. A qualitative rating is given based on a scale of 1 to 4, with 4 translating as 100% use of L2.Of the sixty-nine CLIL classes, twenty-nine of them have L2 as the sole code in interactional discourse in the classroom which are spread over the four schools participating in the study. The table below shows all the CLIL lessons with the ratings assigned for the use of L2 in interactional dialogue with pupils.

Table 5.14

Bilingual schools and the lesson ratings for use of L2 in interactional discourse

School	No. of lessons	No. of lessons rated 1	No. of lessons rated 2	No. of lessons rated 3	No. of lessons rated 4
1	24	1	1	10	12
2	13	1	-	6	6
3	10	-	-	8	2
4	22	1	-	12	9
Total	69	3	1	36	29

Table 5.14 shows that most of the CLIL classes are conducted with a high level of L2 in interactional discourse, with a few classes with low levels of English. The majority of classes are those with a rating of 3, indicating a high use of English (higher than 80%) but with some instances of code switching in the teachers' discourse. Over 40% of the classes are conducted solely in L2 during interactional dialogue.

Table 5.15

CLIL subject lessons with a high rating of 4 in L2 use during interactional discourse

Subject	No. of CLIL lessons	CLIL lessons rated 4	% of classes rated 4
Art	7	6	85
Biology	7	1	14
Drama	2	1	50
Geography	11	1	9
History	13	6	46
IT	3	1	33
Maths	8	4	50
PE	11	6	54
Physics	3	2	66
Religion	4	1	25
Total	69	23	

When the variables of holistic score, language proficiency and year level were considered in relation to the high rating of 4 for L2 use in interactional discourse the results showed that there was no direct correlation to language level and a hundred per cent use of the L2, as the table below shows.

Table 5.16

CLIL lessons with a breakdown of lessons with a rating of 4 in L2 use during interactional discourse

School	Teacher identity	Subject	Language level	Holistic score	Year level
1	IA	Art	C1	3	1
1	1B	Art	C1	3	3
1	1B	Art	C1	3	3
1	1E	History	B2	2	3
1	1E	History	B2	2	3
1	1I	IT	C1	3	1
1	1H	Maths	B2	3	1
1	1H	Maths	B2	3	1
1	1K	Physical Education	C1	3	1
1	1K	Physical Education	C1	3	3
1	1J	Physics	C1	3	1
2	2A	Art	NS	2	1
2	2A	Art	NS	2	1
2	2D	History	C1	1	3
2	2E	History	NS	3	1
2	2G	Physical Education	C1	3	1
2	3B	Drama	B2	3	1
3	3I	History	C2	3	3
3	3G	Physics	C1	3	3
3	4A	Art	B1	1	3
4	4B	Biology	B2	3	1
4	4C	Geography	B2	2	3
4	4D	History	B2	2	3
4	4F	Maths	C1	2	1
4	4H	Physical Education	C1	3	3
4	4J	Physical Education	C1	3	1
4	4J	Physical Education	C1	3	1
4	4K	Religious Education	C1	3	3

It can be seen that not all the teachers revealing a hundred percent use of L2 in interactional discourse are assigned a high rating for language proficiency, which ranges from B2 to native speaker. The subjects of Art, History and Physical Education are highly represented in the group of lessons with a consistent use of L2 in interactional discourse.

When the range of the use of L2 is extended to lessons assigned ratings of 3 and 4 (i.e. a high use of L2) a more realistic and representative picture of the high level of L2 use in CLIL classes can be seen. Classes with low ratings of 1 and 2 were few and far between, being only six classes from the sample.

Table 5.17

CLIL lessons with ratings of 3 and 4 in L2 use in interactional discourse

Subject	No. of CLIL lessons	CLIL lessons rated 3 & 4	% of classes rated 3 and 4
Art	7	7	100
Biology	7	4	57
Drama	2	2	100
Geography	11	10	90
History	13	12	92
Information Technology	3	3	100
Maths	8	8	100
Physical Education	11	11	100
Physics	3	2	66
Religious Education	4	4	100
Total	69	63	

One area of language that revealed a high level of code switching in interactional discourse in the CLIL lessons was subject-specific lexis. The examples were often teacher initiated, after the teacher had expressed concern about learners' comprehension. At times, teachers switched code in mid-utterance to include the translation of a word or phrase when responding to pupil-initiated discourse addressing comprehension of lexis. In the following example a pupil asks for the meaning of the word *pattern*; a word in the text in the course book. The teacher gives his answer.

> T*: for example this can be a pattern for a..(*rising intonation waiting for the pupils to supply the word*) . a house..a pattern … yeah? .. a pattern..In Dutch ..that is the easiest way.. a pattern is in Dutch *een patroon*

Regular code switching in interactional talk occurred during a year 1 Human Biology lesson given by an enthusiastic teacher. The lesson was highly interactive with a high level of pupil-initiated discourse in asking for clarification of subject-specific jargon. It was teacher-fronted and given in lecture mode but the general class atmosphere seemed to be one where questions and comments by pupils were encouraged. This in turn led to rich classroom discourse. One common example of pupil-initiated talk was the requesting of translations. This was a typical strategy employed by pupils when encountering unfamiliar lexis, as demonstrated in the following examples. In this lesson, as in others in this study, the teacher responds with an immediate translation in order to facilitate comprehension.

> P*: What is contract in Dutch?*
> T: [provides a translation]

P*: What is involuntary in Dutch?*
T: [provides a translation]

P: *what 'tire soon'?*
T*:* [provides a translation]

This request for a translation is a typical strategy employed by pupils when encountering unfamiliar lexis. Occurrences of the translation strategy are not always pupil-initiated in this class. At times, the teacher seems to anticipate where new lexical items might not be understood and provides a translation of the lexis, anticipating pupil initiation.

T: *your arteries are your *slagaders.*

T: *the uterus.*je baarmoeder..*

In this lesson the majority of the interactional discourse dealing with lexical meaning is in L2. A substantial amount of code switching occurs during the presentation of content and in explaining new subject-specific lexis, which seems to indicate that this is a frequent strategy in this class when unfamiliar lexis is encountered. In contrast to the high level of code switching in meaning-focused interaction in the lesson as illustrated by the examples above, no code switching in procedural language was observed. In this area of CD the teacher uses L2 100% of the class time. This suggests a conscious choice on the part of the teacher to opt for the translation strategy as appropriate for allowing learners to access meaning. This provision by the teacher of a pre-emptive translation of lexis or phrases relevant to the content is a common one found in other CLIL lessons in the study. Other examples are:

T*: You can have a rough map… *een ruwe kaart…*

T: *be aware…*denk eraan…*noordelijke halfrond..northern hemisphere*

T: *The night of the long knives..* de nacht van de lange messen… where a lot of people were killed.*

T: *sunbeam ..*zonnestraal*

At other times the initial translation code switch to L1 continued during interactive discourse as a means of checking whether learners had grasped subject-specific lexis. In the following example the teacher, having already presented the L2 translation of hemisphere, reversed the procedure a little later in the lesson by checking comprehension in a translation from L2 to L1.

T: *Hemisphere … The northern hemisphere.. the Dutch translation? .*.de noordelijk..(pause to wait for a answer)*
P: * *halfrond*
T: **halfrond . .that's ok. Northern hemisphere*

Other occurrences involved not just code switching to L1 in subject-specific terminology but following longer utterances in L2. A translation in L1 is provided by the teacher even when learners give no indication of miscomprehension. In the example below a teacher

asks a convergent question and, without waiting for a response, follows this with a translation of the question:

> T: *What is the purpose of such a map? *wat is de doel van zo een kaart?*
>
> T: *where do we start counting…*waar beginnen we te tellen? .. where do we start counting*

In the following example the elicitation question is in L1, followed by the pupil's attempt to reply in L2, and then by the teacher's acknowledgement that L1 use in the answer is acceptable. This exchange is completed with the teacher providing the L2 response.

> T:* *je hebt 2 soorten kaarten over Europa gehad .Welke waren dat alweer*? [translation; You have had 2 kinds of maps about Europe. What were they again?]
> P: *(raises hand)*
> T: *yes?*
> P: *mmm..*(indicating insecurity about answering*)*
> T: *You may say it in Dutch if you don't know it in English.*
> P: *(*answers in Dutch)
> T: *Yes.. so this is a natural one.*

Some responses by subject teachers aim to balance language and content by checking comprehension of key concepts in the L1. The following example is at the beginning of the introductory phase of a Human Biology lesson dealing with sight.

> T: [writes on board 'near and far sightedness'] *Who knows what the words for that are in Dutch?*
> P: [replies in L1]
> T: [repeats pupil's answer in L1]

While some of the content teachers mixed codes, others overtly stressed the need for pupils not to code switch. In one lesson the teacher requests pupils to use synonymous language and not translations of lexis.

> T: *Try to give a synonym or to give another word.*

Other ways that teachers seem to be using code switches involved more deliberate actions, such as tagging a code switch in order to alert learners. In research by Nikula (2005) on classroom discourse in EFL classes and CLIL classes in Finland, it was found that teachers often tagged a code switch with a discourse marker. This was at times a Finnish discourse marker used at the beginning of discourse sequences; at other times an English marker such as *okay* was used, followed by a micro-pause referred to by Nikula (2205:35) as a *boundary-signalling marker,* indicating a change of activity and a change of code. This study also throws up examples of discourse markers being used in this way. Such a marker or tag is oral input by the teacher, giving explicit notification to pupils of an upcoming switch, as in the following example.

The teacher uses L1 in an extended stretch of discourse to explain the concepts of reflected heat and radiation, in response to a pupil's request to explain these in Dutch. The teacher tags his answer at the outset to indicate that he is now going to switch to L1.

T: *OK in Dutch*…[teacher continues in L1 for 1 minute, checking at the end of the explanation for comprehension]

In a year 1 Geography class the teacher is confronted by a pupil who says that she does not understand how the coordinates on a map work. Previously in the lesson the teacher had told the pupils that this part of the lesson was important and that they needed to understand the concept. At first the teacher uses L2 to respond but quickly changes to L1 to give an explanation, tagging the switch by giving a reason for it. This may be due to the teacher considering that the concepts are too difficult to explain in L2 or too important not to check in L1, thus justifying the L1 switch.

P*:*ik snap het niet..*[translation: I don't understand]
T: *We are doing it all the time..*
P*: Wat?* [translation: what?]
T: *we…* wij doen dit de hele tijd.* [translation: we do this all the time] *OK… We do this central…please..you know it all? …You are so busy. Let me give you um...let..Shrewsbury station….tell me what six figure reference you should give to that.* Ik zal het in nederlands zeggen.* [translation: I'll say it in Dutch] *Shrewsbury station…* [continues in L1 to explain map references]

The teacher then participates in a 3 minute interaction with one pupil in L1 about how to find the coordinates and how to locate a town or city on a map. When satisfied that the pupil has understood the L1 explanation of how to find the coordinates, she then switches back to L2 to continue the lesson. This switch to L1 in order to facilitate comprehension of subject content occurs when teachers notify learners by tagging and give a reason why the switch is occurring. A tag of the code switch is not always present, and some teachers code with no discernible markers, pauses or hesitations being used.

There were several lessons which had extended switches in the teacher's discourse. One example is the following lesson given by a biology teacher who displays a high level of code switching in presenting content, at times translating extended stretches of discourse and changing unhesitatingly from L2 to L1 and back again:

T: *Sometimes the parts.. in the substance are too big to cross the cell membrane. *soms zijn de de deeltjes te groot om doorheen te kunnen te gaan* [translation: sometimes the particles are too big to go through] … *And then it's better not to move the particles..*deeltjes* [translation: particles **dus de onderdeeltjes...de stofjes*...[translation: the particles] *but the water itself….*

T: **eigenlijk kan je zeggen water is diffusie of osmosis ..diffusie van water. Dus je gaat van een hoog concentratie water naar een lage concentratie van water*
[translation: Actually you can say that water is diffusion of osmosis..or diffusion of water. So you go from a high concentration of water to a low concentration of water.]

P: [question in L1 to clarify the teacher's explanation] .
T: **nee..no it's not the same*.

At other times teachers switch codes in mid sentence, continuing the explanation with no translations.

T: *But the salt cannot pass …*en toch wil je evenwicht krijgen ..toch wil je dat de beperkt hoeveelheid water…*[translation: and even so you want to get a balance. You want the limited amount of water]

The teacher continues with extensive stretches of L1 explanation of content concepts. This action might reflect the teacher's comment at the start of the lesson about the difficulty of the subject matter and his expressed concern that pupils should understand the subject-specific concepts, though this does not seem to reflect his other comment at the beginning of the discussion about the language not the concepts being the stumbling block for pupils. The type of interaction displayed in this lesson is atypical of other classes observed, where most teachers consistently used L2 in content presentation and interaction with pupils, with little metalinguistic comment about language issues. While the lesson contains a high level of L1 use, it was highly interactive in nature with questions initiated by the learners and a high rate of checking comprehension in both L1 and L2.

5.6 Code switching in interactional discourse in English support classes

The fourteen English support classes in this study show a consistent and extremely low level of code switching to L1 in dialogic interaction with pupils.

Table 5.18

English support lessons with ratings for use of L2 in interactional discourse

School	No. of lessons	No. of lessons rated 1	No. of lessons rated 2	No. of lessons rated 3	No. of lessons rated 4
1	5	-	-	-	5
2	5	-	-	-	5
3	1	-	-	1	-
4	3	-	-	1	2
Total	14	-	-	2	12

The very occasional occurrences are found in one year 3 class. The teacher's code switching does not appear to be part of his usual repertoire in classroom discourse. In exchanges when pupils respond in L1, his usual mode of behaviour, in this and other lessons, is to elicit the answer in L2 from another pupil.

In the following example, the teacher is presenting the concept of a compound noun and an adjective, and elicits from the pupils the definition of an adjective.

T: *what is an adjective again? Do you remember? What does an adjective do? What does it give information about?*
P1: *it tells us something about a.. a.. * zelfstandignaamwoord [*translation: a noun]
T: *about a *zelfstandignaamwoord…what is a *zelfstandignaamwoord? [*translation: a noun*]*
P2: *a noun*
T: *yes a noun very good so a noun*

In the following example the teacher adds a translation in L2.

> T: *compound just means that it is two words and they are linked together by a hyphen.. a dash .. * een streepje tusssen [*translation: a dash in between]

Table 5.19

English support lessons with use of L1 and L2 in interactional discourse

School	Teacher identity	Year level of class	Holistic score	Language level	Rating for L2 use
1	ES1D	3	3	NS	4
1	ES1D	3	3	NS	4
1	ES1C	3	3	C2	4
1	ES1C	1	3	C2	4
1	ES1C	3	3	C2	3
2	ES2G	3	3	C2	4
2	ES2G	1	2	C2	3
2	ES2E	1	2	NS	4
2	ES2F	3	3	NS	4
2	ES2E	1	2	NS	4
3	ES3H	3	3	C2	4
4	ES4A	1	3	NS	4
4	ES4B	1	3	NS	4
4	ES4A	3	3	NS	4

The table above shows that eight of the English support teachers are native speakers of English and that only two of the teachers in the group use less than 100% of L2 in interactional talk. Apart from occasional uses of L1 and code switching, all showed a very high and consistent use of L2.

5.7 Code switching in interactional discourse in Mainstream English classes

The analysis of code switching in interactional discourse in mainstream English classes revealed a somewhat different picture to the English support classes, showing more varied results in the use of L2 in interactional talk.

Table 5.20

Mainstream English lessons with ratings for use of L2 in interactional discourse

School	No. of lessons	No. of lessons rated 1	No. of lessons rated 2	No. of lessons rated 3	No. of lessons rated 4
1	4	-	1	3	-
2	2	-	-	2	-
3	2	-	-	2	-
4	1	-	-	1	-
5	2	--	1	1	--
Total	11	-	2	9	-

All English mainstream classes had some use of L1 during interactional talk. One aspect that is common to most of the mainstream English classes in the study is the use of L1 in explanations of morphosyntactical aspects of language, in particular the use of tenses in

English and how to form the verbs concerned. This type of interaction was found in both year 1 and third-year classes in the study.

In a year 3 mainstream English lesson for which the teacher was given a high language score and a high holistic score, she begins the lesson by giving instructions in L2. She switches to L1 when giving an explanation of the use of the passive verb in English, with metalinguistic comments on syntax and spelling. The teacher tags her code switching by saying that she is going to explain this in L1 as it is important and that pupils are required to give the answers in L2 and to take notes in L1.

> T: *Just write this down..[*[Teacher writes on board*] * dit leg ik even in het nederlands uit [*translation: I will just explain this in Dutch]

With example sentences of the grammar item written on the board in L2, the teacher continues in L1 for a 10 minute stretch of discourse explaining the grammar item in L1 and eliciting from pupils some translations of the sentences into L2. The teacher then switches to L2 to continue the lesson by checking comprehension of a text and by eliciting answers and examples from pupils on another topic with no explicit grammar focus. The learners in the class seem engaged with the topic and are mostly accurate in their language use in their answers.

This overt use of L1 in explanations of grammar is a common one in the mainstream English classes, with switches by teachers for referring to terminology in L2 within an L1 utterance.

> T*: * Als het heel duidelijk momenten zijn .een woord dat aangeeeft dat het nu gebeurt..quick..of wel zoiets dan weet je dat het continuous is. [*translation: if there are clear moments.. a word that indicates that it is happening now..quick ..or something like that that tells you it is continuous*]*

> T*: could you read out the sentences..the first sentences please. Seven seven*
> P: *[reads answer in L2]*
> T: **kan iemand zeggen waarom het it doesn't like it and niet isn't liking* [translation: can anybody tell me why it is doesn't like and not isn't liking]
> P: *[gives explanation in L1]*
> T: *ok ..ja*

The use of L1 in dialogue about grammar explanations is not always consistent though, as can be seen in the following example taken from the same class as above where the teacher asks the question in L1, and then requires the pupil to answer in L2 when giving a metalinguistic comment on the use of the present tenses in English.

> T: **Waarom is het niet present continuous? ..waarom is het present simple? [*translation: *why is it not present continuous? Why is it present simple?]
> P: [begins explanation in L1]

> T*: Say it in English .(*teacher models the first part of the required answer*) .it's always present simple when it's..(*rising intonation)
> P: *(*struggles to give a correct explanation in L2)

T: *What word gives you the indication that it is going to be present continuous.* Welk woord geeft dat aan?*
[translation: *Which word indicates that*?]*

The second lesson with the same class and recorded later in the year contains many examples of code switching in metalinguistic comments about the grammatical accuracy of answers about the rules for the use of present continuous and present simple, with some comments in L1 and others in L2.

T*: She is dying. It's happening at the moment.*

T*: The title of this uh. lesson is a. A trouble shared ..now can someone tell me what it means?*
P: *(*gives translation in L1*)*
T: * *wat zeg je?* [translation:*what did you say*?]*
P: (inaudible)
T:* *ja. dat je deelt een probleem met een andere ..ja .een trouble shared…het kan ook iets anders beteken..to share is delen..ja..je kan ook zeggen I shared a cake I shared a cake I shared a present*

The teacher then continues in L2 to introduce the text in the book.

The example below is from a highly interactive lesson where a frequently used teacher strategy is the use of elicitation techniques in presenting and checking comprehension of lexis and of grammatical structures.

T*: Give me a translation of 'addressed to'.*

In the following example the teacher uses both codes in explanations and elicitations of grammar items, with code switches in the middle of utterances. The teacher was given a low holistic score and a low score for language level. It seems as if the strategy of code switching had more to do with classroom management issues than with pedagogical concerns of mediating the lesson material.

T*: are there any ..is there. are there any words you don't understand. *Zijn er woorden die je echt niet weet. Dus kijk even op bij lesje een. On page 44 lesson 1 there is a bars with all types of weather…there are verbs and there are nouns so..*werkwoorden en zelfstandige naamwoorden *en bijvoegelijke naamwoorden die over het weer vertellen. They tell us about the weather.*

In both year 1 mainstream classes given by a teacher with a high level of L2, there is rich linguistic interaction between teacher and pupils. This is also reflected in the same teacher's high level of L2 use for procedural language and presentation of content, as reported in chapter 5. The teacher was given a holistic score of 3 and had a C2 score for language. In interaction with learners the teacher seems to be aware of presenting pupils useful L2 in procedural language and non-content specific language, and of doing the same in interactional dialogue with learners. The level of language input is appropriate but natural sounding, not complex but at a level that seems to take into account the pupils' age and level of language. The learners seem to be engaged in the lesson and respond in the L2.

T*: Now we are going to have a quiz today. You know we are going to have a quiz?*

And in giving instructions on class behaviour and procedures:

T: *You get 2 pieces of paper.*
T*: I'd like you to move your tables together. Good luck everybody.*

Sometimes L1 is used incidentally in procedural language.

T*: *Je mag opruimen.* [Translation: you can clear up]

And at other times the L1 is used to encourage the use of English.

T*:* in engels..probeer het..*[Translation: inEnglish ..try it]

The teacher's code switching in these 2 lessons seems to be deliberate and is often focused on checking comprehension of lexis, as in the following example giving an L1 translation and context of *'allowed to'*.

T*: I am not allowed to..to be allowed to ..allowed to is *dat het niet mag*

[translation: That it's not allowed]

In the following example the teacher translates and gives a definition of *tiny* using L1 in the explanation.

T*: tiny .kl..tiny is klein, small..but tiny is even smaller..tiny..little..piepklein eigenlijk..heel piep klein..*

Table 5.21

Mainstream classes and use of L1 and L2 in interactional discourse

School	Teacher identity	Year level of class	Holistic score	Language level	Rating for L2 use
1	MS1G	1	3	NS	3
1	MS1F	1	3	C2	3
1	MS1H	3	3	C2	3
1	MS1F	1	3	C2	2
2	MS2C	3	1	C2	3
2	MS2C	1	1	C2	3
3	MS3D	1	2	C2	3
3	MS3E	1	2	C2	3
4	MS4I	3	2	C1	3
5	MS5B	3	3	C2	2
5	MS5A	1	3	NS	2

Table 5.21 shows the ratings for use of L2 in mainstream classes during interactional talk with learners. Three of the classes revealed a high use of the L1 and a low score of 2 for L2 use in interactional talk.

5.8 Summary

The data in this chapter has shown that the majority of CLIL teachers in this study are consistently using L2 as the main code in both classroom procedure and presentation of content. This practice complies with CLIL principles, involving the concept of exposure to input for assisting SLA in learners and providing them with models of language as used in the varied aspects of classroom discourse. The data also shows that CLIL teachers code switch to Dutch in presentation of subject-specific lexis and in presentation of subject concepts. These switches are often teacher-initiated with verbal tags to indicate to pupils that the specific concepts and lexis are the important aspects of the content. Teachers in the English support classes show a higher level of L2 use than the CLIL teachers in both presentation of content and interactional discourse, with few switches either in presentation of content or in interactional dialogue with pupils. The English teachers in the mainstream classes show a more idiosyncratic pattern in code use, with none of them scoring 100% use of English during the lessons. Most occurrences of code switching in the mainstream classes relate to morphosyntactical aspects and are often preceded by a tag to indicate the reason for the switch.

Chapter 6 Findings on modifications and elaborations in teachers' discourse

6.1 Introduction

This chapter presents the findings on teachers' strategies for facilitating comprehension by modifying their own discourse, by elaborating on their utterances and by adding and expanding utterances to assist perceived or expressed lack of comprehension. Instances of these types of utterances were counted with the objective of developing a comparison of occurrences of these strategies and to investigate the pedagogical and linguistic environments in which the modifications occur. In the OP, indicator 5 relates to the occurrences of modification, elaboration and expansion of the teachers' own utterances which were transcribed to account for the linguistic environment in which they occurred.

Table 6.1

The section of the OP relating to modification

Presenting content	Frequency	Examples
5. Modifies, elaborates and expands own spoken syntax in L2		

The data on each of the three instructional contexts is examined for the number of occurrences found in the discourse. This presentation of the findings is illustrated by examples from the recorded lessons. Table 6.2 shows the number of occurrences in the three contexts and gives a percentage of how many lessons reveal the use of this strategy.

Table 6.2

Occurrences of teacher modifications and percentage of lessons where the strategy is used

	CLIL	English Support	Mainstream
Total no. of occurrences	105	56	12
% of lessons where strategy is used	68	78.5	45.4

6.2 Modifications in CLIL classes

In the group of CLIL teachers in this study, 39% demonstrated no observable overt occurrences of modification in their presentation of content or in their interactional discourse with learners. The tables 6.3 to 6.6 below show the number of the occurrences in the four bilingual streams.

Table 6.3

Teachers' modifications in CLIL classes in School 1

No. of modifications'	Teacher identity code	Language proficiency	Year level
0	1B	C1	3
0	1A	C1	1
2	1B	C1	3
4	1C	C1	1
1	1D	C1	1
1	1E	B2	1
4	1E	B2	3
1	1E	B2	3
1	1E	B2	1
0	1E	B2	3
0	1E	B2	1
1	1F	B2	1
0	1E	B2	3
1	1I	C1	1
0	1H	B2	1
1	1H	B2	1
0	1G	B2	3
0	1G	B2	3
0	1K	C1	1
1	1K	C1	1
1	1J	C1	3
0	1J	C1	3
1	1K	C1	3
0	1K	C1	3
Total = 20			

In School 1 there are no classes that reveal a high use of modification and elaboration of the teachers' discourse. The two subjects that reveal the highest numbers of occurrences of this strategy are Biology and Geography.

Table 6.4

Teachers' modifications in CLIL classes in School 2

No. of modifications'	Teacher identity code	Language proficiency	Year level
2	2A	NS	1
2	2A	NS	1
9	2B	NS	1
0	2C	NS	1
2	2C	NS	1
0	2D	C1	3
5	2E	NS	1
5	2E	NS	1
1	2D	C1	3
0	2F	C1	1
1	2F	C1	1
0	2G	C1	1
3	2G	C1	1
Total = 30			

In School 2 there are classes with a higher number of modifications observed than in School 1. The lesson with the highest number of modifications is a year 1 Biology class. Four of the lessons in this school show no overt examples of modifications or elaborations.

Table 6.5

Teachers' modifications in CLIL classes in School 3

No. of modifications'	Teacher identity code	Language proficiency	Year level
1	3A	C1	3
0	3B	C2	1
0	3C	C1	1
2	3D	C1	1
4	3E	C1	3
1	3F	C1	1
1	3I	C1	1
0	3I	C1	3
2	3G	C1	3
1	3H	C1	1
Total = 12			

In School 3 the highest number of occurrences of modification is in a year 3 Geography class with a teacher assigned a rating of C1 for language proficiency level. The level of modifications is generally low in the lessons in this school.

Table 6.6

Teachers' modifications in CLIL classes in School 4

No. of modifications'	Teacher identity code	Language proficiency	Year level
0	4A	B1	3
5	4B	B2	3
1	4B	B2	1
1	4B	B2	1
2	4B	B2	1
7	4C	B2	1
4	4C	B2	1
1	4C	B2	3
8	4D	B2	1
0	4D	B2	3
0	4E	B2	1
5	4E	B2	1
0	4F	C1	1
2	4F	C1	1
0	4H	C1	3
0	4G	B1	1
0	4I	C1	1
0	4J	C1	1
0	4J	C1	1
3	4K	C1	3
3	4K	C1	1
1	4K	C1	3
Total = 43			

From the 22 lessons recorded in School 4, nine of them reveal no use of teachers' modifications or elaborations. The lesson with the highest number of modifications is a year 1 Geography class with 7 examples of teacher modifications.

Of the CLIL teachers who included overt reformulations, modifications and expansions, the frequency of these behaviours was low, ranging from 1 to 9 occurrences per lesson. The highest number of modifications occurred in a year 1 biology lesson in School 2, where there was a high level of interaction between teacher and pupils, with long stretches of teacher discourse in presenting concepts. The teacher is a native English speaker who seems to show an awareness of the pupils' level of language and appears to adjust her speech tempo, syntactical complexity and level of lexis to their level. The teacher provides synonyms for subject lexis without explicit comprehension checks.

> T: *if you have to focus on something far away ..or in a different word .. distant….when you focus on something near to you or close up or close by ..how you would say that? …*

The teacher then rephrases her question, not due to any reaction on the pupils' part but as an alternative to the more syntactically and lexically complex first question. The teacher rephrases the question *'what does that mean in practice?*' to an alternative interrogative form.

> T: *for someone who is near-sighted, what does that mean in practice? What does he see well?*

The teacher adds an explanation and additional information relating to the lexical item *'receptors'* by providing the base verb form *'receive'*.

> T; *the cells, receptors basically.. we call them receptors because they receive things*

In the following example from a year 1 History lesson the teacher is explaining the causes of the Black Death in the history of London, and provides an elaboration on the word *'plague'*.

> T: *how was the plague called?.. that terrible disease that killed so many people*?

In the following example, the teacher introduces the word *rodent* in the context of the animal category to which a rat belongs. She attempts to elicit the answer and when none is forthcoming from the pupils, she expands on the definition until one pupil gives the answer in Dutch. She then confirms the answer and continues with the explanation.

> T: *the rats..often people..um..caught ..and killed other rodents .. what is a rodent? Do you know that? Marleen? … a rodent ..who knows what a rodent is?*
> P: *een regenboog* [translation: a rainbow]
> T: *No not a rain dance..{laughs}..it's an animals with 2 big teeth that are always chewing.. like rabbits like ..beavers like um ..*
> P: *knaagdieren* [translation: rodents]
> T: *yes very good . that's rodents..so these rodents…*

The teacher does not require pupils to productively use the word *rodent* in any subsequent interaction.

The following example is from a teacher-fronted class using a text on the history of housing in inner cities. A frequent mode of instruction used by the teacher was that of checking comprehension through questions on lexis, followed by an explanation of the text, with additional explanations and elaborations. A high number of pupil-initiated questions on lexical meaning occur, which requires the teacher to elaborate on meanings of content-specific lexis. The following example shows a pre-emptive modification.

> T: *The houses were high..a lot of space..*

The following examples demonstrate a reactive response to a pupil request for clarification of the word '*prosperity*'. The teacher modifies his initial utterance of prosperity with illustrations of synonymous language.

> T: *Prosperity ..do you know the word for prosperity ? To have more income..prosperity is rising..increasing..prosperity is ..um ..up*
>
> T*: Prosperity is also has also the meaning of to have a lot of money..prosperity…*

Modification and elaboration are intertwined in some teachers' utterances, and an example of this is found in a Religious Education lesson given by a teacher with a high holistic score. In the following example it seems that the teacher identifies the lexical items *obey* and *promise*, and also the syntactical structure of the first question as problematic for the pupil.

> T: *Why do you think that the people promised faithfully to obey God?*
> P: *erm.. they ..were… (pause)*
> T: *Why did they say yes we will definitely serve you?*

The same teacher frequently elaborates on the pupils' answers:

> P; *de rijke jongeling.. (L1 answer)*
> T*: try to tell it in …*
> P: *the rich men*
> T: *yes, the rich young men*

In this example the teacher appears to add the adjective '*young*' as it is an attribute included in the pupil's original L1 answer.

The following example of elaboration is from one of the PE lessons, which generally do not produce many examples of modification and elaboration of utterances.

> T: *It's a bit of a static game..with that I mean people don't run around, they have to stay in their place but they all get to participate they all sitting there they all want to catch the ball so they are busy with it..that's good.*

6.3 Modifications in English support classes

Comparison of the three instructional contexts revealed that the group of English support teachers in bilingual schools produced the highest number of examples of overt modifications and elaborations of linguistic elements in classroom discourse. Within the fourteen classes, three teachers used no modifications in class, with the remaining eleven teachers' number of modifications ranging from 1 to 15 examples per lesson.

Table 6.7

Modifications in teachers' discourse in English support classes

School	No. of modifications'	Teacher identity code	Language proficiency	Year level
1	7	ES1D	NS	3
1	8	ES1D	NS	3
1	3	ES1C	C1	3
1	3	ES1C	C1	1
1	3	ES1C	C1	3
2	1	ES2G	C2	3
2	0	ES2G	C2	1
2	15	ES2E	NS	1
2	0	ES2F	NS	3
2	2	ES2E	NS	1
3	0	ES3H	C2	3
4	4	ES4A	NS	1
4	8	ES4B	NS	1
4	2	ES4A	NS	3
Total	56			

The table above shows that the support classes in school 1 have the highest number of teachers' modifications with an average of 4.8 per class. One teacher in School 2 uses this strategy 15 times in one class, while in other lessons in this school there are no occurrences of modification of discourse. The modifications observed in this group fo teachers falls into one of several categories, detailed below.

Morphosyntactical modifications

Some of the teachers' modifications are morphosyntactical and the following example is of a reformulation of a procedural question asking whether a pupil has completed the task.

> T: *How far are you with your fairy tale?*
> P: (inaudible)
> T: *That doesn't mean anything to me. At what point ..are you almost finished writing?.. or are you still in the middle of it?*
> P*: in the middle*

The question "*At what point… are you almost finished writing?"* seems to be unanswered by the pupil, so the teacher reformulates with a closed question of "*Are you still in the middle of it?"*

Lexical modifications

Some lexical modifications are given by teachers after pupil-initiated queries about meaning. This is a common feature in a year 1 English support class recorded at the beginning of the school year. It is a highly interactive lesson, data-rich and exhibiting elaborations, introduction and explanation of lexis. In response to a pupil request for the meaning of the word *quarrelling* the teacher replies:

> T: *quarrelling is they are getting angry with each other.*

An elaboration of '*keep the peace'* comes after a request from a pupil for the meaning of this phrase. The teacher is a native speaker given a high holistic rating, and here she provides contextual clues to assist comprehension.

> P: *What does keep the peace? I don't know.*
> T: *If its..um.. for example if there's ..um .. maybe someone says to their mum they have a problem with this and she says well don't say anything, just keep the peace..yeah..*
> P: *oh yeah*
> T: *just make sure it's peaceful..Yeah?*

Pre-emptive and proactive modifications

Samples of elaborations of lexis reveal occasions where teachers pre-empt miscommunication by giving synonymous phrases as a type of translation before the learners indicate any miscomprehension. It sometimes appears that the English language teachers are alert to lexis that could be problematic and have at their disposal a range of alternatives that they will display to learners. This allows them to select the one that best suits the pupils' level of comprehension, while at the same time giving a rich range of equivalents. This strategy is a common feature amongst the English support classes in this study and I would suggest that over the years the more experienced teachers tend to develop this repertoire that they can produce at wont and when appropriate.

The two following examples show teachers' immediate elaborations on lexis.

> T: *Your leisure time..in your spare time*

> T: *Do you get picked on by your brothers .. do they tease you?*

The following example is a longer elaboration on the definition of cotton as a natural product. This is a pre-emptive definition where pupils are not immediately required to include the language in any subsequent production.

> *T: One thing about cotton one good thing was that they could make it and more and more people could wear it and cotton is a nice material because it's a natural material ..it's from nature.. and it allows your skin to breathe because if you wear like nylon or material that is not from nature your skin can't breathe it's not a natural product so that was a nice thing. It became much cheaper.*

Checking comprehension

In the following example the teacher is checking comprehension of the word *sympathetic* and gives a context-embedded example:

> T: *It's kindness..understanding. If you say I've not done my homework because I've not been feeling well and I said that's OK I hope you feel better, then I am sympathetic.*

In the following example the pupil is attempting to provide the teacher with a definition of the word *dreaded.*

> P: *If you don't want to do it..*
> T*: Why don't you want to do it?*

In the end the teacher provides the definition that she was attempting to elicit from the pupils (an object of fear) and supplies a further explanation:

> T*:It's dreaded..it's frightening…*
>
> T: *Dreaded … what does dreaded mean? (writes on board)*
> P: *Dreaded hair?*
> T*: No ..Dreaded ..something is dreaded yes*
> P: *If you don't want to do it..*
> T: *Why don't you want to do it?*
> P: *Because it's..because ..because I don't know how to explain it but it's not something normal*
> [Teacher provides the synonym]
> T*: because maybe you're frightened of it? So it's an object of fear.* [writes on board 'an object of fear'] *It's dreaded, it's frightening*

An example of a lesson data-rich in reformulations and modifications is a 1st year English support class taught by a native speaker using a variety of effective strategies. These include a large number of recasts, metalinguistic comments, asking for pushed output and also modification and elaboration. The teaching objective of the lesson is the practice of lexical items, and it therefore lends itself to providing more opportunities for elaboration and modification featuring synonymous language, than a more teacher-fronted lecture-type lesson. In the following example the teacher elaborates on the noun *'fear'* by providing the adjective *'frightened'* to elaborate on her first explanation.

> T: *How do they make you feel?.... A formidable person is someone who causes fear, who makes you frightened*

Scaffolding

The teacher gives examples of the lexical items in context as a scaffolding device to assist comprehension and elicit responses from pupils.

> T: *obstinate.. obstinate.. anyone know that?* (no reply) *unbending, inflexible, stubborn ..If I said to you Serge you are going to do the first and second verse of the daffodils and you said no I'm not and I said yes you are and you said no I'm*

not that's you being obstinate and that's me being obstinate too because I'm saying yes you are and you're going no I'm not…

Later the teacher uses synonymous language to illustrate lexical meanings as in:

T: *they need to have a big amount of water.. lots of water*

and gives examples to illustrate the meaning.

T: *Science fiction is books about things that haven't happened yet.. about people living on the moon..*

6.4 Modifications in Mainstream English classes

The mainstream English teachers were very sparing in their use of reformulation, with fewer instances of reformulation and modifications than in the CLIL lessons.

Table 6.8

Modifications in teachers' discourse in mainstream English classes

School	No. of modifications'	Teacher identity code	Language proficiency	Year level
1	8	MS1G	NS	1
1	0	MS1F	C2	1
1	0	MS1H	C2	3
1	1	MS1F	C2	1
2	0	MS2C	C2	3
2	0	MS2C	C2	1
3	1	MS3D	C2	1
3	0	MS3E	C2	1
4	0	MS4I	C1	3
5	1	MS5B	C2	3
5	1	MS5A	NS	1
Total	12			

The table above shows that six of the eleven classes revealed no modifications or reformulations in their own discourse. The study shows that in the mainstream English language classes many of the teacher reformulations take the form of definitions of discrete lexis with overt synonymous language such as:

Non-explicit examples with synonyms

T: *You get them from this schedule..from this chart*

Placing lexical items in context

T: *Foggy is very dangerous because you can't see very well.*

A mainstream lesson in a year 1 class with a high level of L2 use by the teacher, but with little pupil output in L2, provides an example of reformulation of a question.

T: *Is it too difficult for you?*
P*: (*no response)
T*: The book..Don't you understand the book?*
P*:* (response in L1 that he just doesn't like the book.)

Checking comprehension of instructions

Instances were found also of modification and reformulation of utterances in checking comprehension and in aspects of classroom management. The following example illustrates a prosodic modification of the tempo of speech and a reformulation of syntactic complexity.

T: *We only have to write the story once a week until December and in January we will write it once every 2 weeks, so we are getting further apart in our frequency. OK. Do you not understand Denise?*
P: *No*
T: *No? OK.* (Teacher speaks more slowly and deliberately with longer pauses between the sentences). *Now we write a story once a week. Every week we write a story, yeah? In January. .. in January we will write the story once every 2* (with hand signals) *weeks. OK?*
P: (pupil nods)

The exchange below illustrates an unsuccessful attempt at eliciting a pupil response. The teacher also modifies the tempo of her speech and the syntactical complexity.

T: *Did you get all of those? How did you get on with those?*
P: [no response]
T: [*slower* tempo] *How did you get on?*
P: [no response]
T: *Did you have difficulty?*
P: [no response]
T: *Did you find it difficult?*
P: *Mm … No*
T: *Oh. OK. Alright. Let's go on to the next one.*

It is not possible to measure the success of the modifications made in the two samples above, as no verbal response from the pupil was forthcoming nor any indication of comprehension required.

6.5 Summary

The findings show that 61% of the classes conducted by the CLIL teachers in this study reveal the use of this modification strategy. The majority of the modifications fall into the category of subject lexis. The English support teachers employed more modifications and elaborations of discourse than the teachers in the other two contexts with 78% of the lessons showing the use of this strategy. The modifications cover the language areas of morphosyntax, lexis and scaffolding strategies. The use of more types of modifications in the support teachers' discourse could be explained by their perception of their role in the bilingual streams. They are teachers of language within a bilingual stream, so they may

have a heightened awareness of what is required to assist learners' SLA. The teachers in the mainstream classes show the lowest number of modifications in their discourse, with 45% of the lessons showing the use of this strategy. This low number may be the result of these teachers' pre-selection of the type and level of language required for instruction, thus precluding the need for modification. The low rate can also be related to a higher level of code switching by the mainstream teachers, which may eliminate the necessity for modifications in L2.

Chapter 7 Findings on the use of questions forms in eliciting learner output

7.1 Introduction

This chapter details the results of the observations of classroom discourse characterized by teachers' questions with three types of questions; convergent, divergent and procedural. The chapter starts with an explanation of the categories of questions selected for the OP and then presents the results of the observations made on the frequency of these question forms.

In the development of the observation protocol for this study, the convergent/divergent typology was selected as the labelling system for question forms found in the data relating to presentation of content and interactional dialogue. The choice of the convergent/divergent paradigm was made on the basis that one focus of the study is the examination of teacher-given opportunities for language development in learners as an effective strategy for promoting second language acquisition. Qualifying questions in accordance with the convergent and divergent labels is intended to identify those questions that theoretically could allow more elaborate and extended answers. This approach would show whether convergent questions in the IRF sequences lead to requests for elaboration. The analysis would also reveal the frequency of divergent questions in teacher-pupil exchanges and investigate the learners' responses. In addition to the convergent/divergent classification, the Observation Protocol includes categories for procedural questions.

Table 7.1

Section of the OP registering question forms in presenting content

7. Checking comprehension while presenting content in L2 a. Convergent questions		
b. Divergent questions		
27. Procedural questions		

The procedural questions are classed as a separate category as they fall outside the area of presentation of content, and, though they include convergent and divergent questions, they were counted as separate groups. While these questions form part of the CD they are not directly interactional in mediating content, as they are not directly related to

presentation of content or the checking of comprehension. Convergent and divergent questions also appear in the data for questions during classroom procedural language relating to organization and management situations.

To summarise, the classification of teachers' question use recorded on the OP gives a quantitative count of three groups of question forms: convergent, divergent and procedural. The table below shows the section of the OP which was used to register teachers' questions in presenting content with 3 types of questions registered.

7.2 Convergent questions in CLIL classes

Analysis of the occurrence of convergent questions in the sixty-nine CLIL classes revealed that some subject areas show very few occurrences of convergent questions: all eleven Sports classes showed a low score, and only one of the seven Art classes scored more than 10 occurrences in the class. Out of the total number of classes, ten revealed no use of convergent questions in presentation of content, and on analysis of the lessons it can be seen that this lack of convergent questions is task- and subject-dependent. Fifty per cent of this group of ten are PE classes, while 2 are Art classes and 3 are History classes. There is a degree of predictability in the non-occurrence of convergent questions in Art and Physical Education when one considers the subject content and pedagogy of both subjects and the organization of these types of lessons.

Sports lessons are occasions for physical exercise, so it is reasonable to expect less overt mediation of content or checks on comprehension of subject concepts. This is not to say that this does not occur at all, and one Sports teacher used 10 minutes of the lesson to discuss aspects of an activity that required one pupil to teach the rest of the group. The teacher's questions address safety issues for the activity and he asks for pupils' comments on aspects of language used by the pupil giving instructions about it. The teacher consistently used the L2 and reminded pupils that they had to use English during this lesson too. The following extract is an example of convergent question forms in the teacher's CD focusing on content.

> T: *The first exercise..was that original?*
> P: *No*
> T*: it was something of a variation*

> T: *Are the kids watching where the ball is coming from or are they with their backs towards the ball?*
> P: *No*
> T*: So they see the ball coming then it's safe.*

The teacher asks pupils to comment on each others' level of English with specific areas of their language use and gives his own comments on the pupils' L2 use.

> T: *Who would like to comment on his English*?

> T: *I think Natalie's English of course is very good. She speaks in full sentences, she has no hesitations and she has good pronunciation.*

Although there is an overt focus on language, and it seems that the teacher is attempting to provide contexts for language use, the pupils' output is limited. The teacher provides them with alternative, synonymous language but is not able to elicit extended answers. In the Art lessons, the organizational procedure mostly required individual pupils to work on their own assignments, with one-to-one teacher interaction involving few convergent questions for the mediation of content.

The zero score for the use of convergent questions in three of the History lessons, given by three different teachers, does not seem compatible with the results of interactive dialogic discourse found in the other History lessons in this study. The lack of such questions in these three History lessons is matched in the data by the infrequency of other strategies, and seems to be due to the individual teaching styles. In one lesson the teacher and pupils read aloud from a text book in a lecture-style discourse. The pupils' task is to watch a video and then complete a worksheet featuring comprehension questions. There was no mediation of content or comprehension checks on content, and the teacher was assigned a low holistic score of 1 and a language score of B2. The other 2 lessons showed a similar teaching style with no mediation or questions checking content comprehension. In addition, the lack of the use of strategies for eliciting language could also be due to the nature of the task itself. As the teachers in the study were not informed of the objective of the study, it is not possible to conclude whether the observed behaviour is representative of their usual teaching style, but it can be assumed that this may be the case.

In the other CLIL classes, twenty-five classes recorded more than ten occurrences of convergent questions per lesson, with scores ranging from 11 to 37 occurrences per class. These higher scores were spread across all four schools in the study. It can therefore be concluded that in no school was there a much greater use of convergent questions than in the others. However, it is also possible to conclude that some subject areas in the content classes figure more prominently than others in the breakdown of correlation of subject to convergent questions. A comparison of scores based on the subject of the lesson shows that the highest scores in the number of convergent questions were found in a Geography and a History class with scores of 37 and 28 respectively. Geography classes in particular revealed a high level of convergent questions overall, with eight of the eleven lessons showing a high level of convergent questioning by the teacher.

Table 7.2

CLIL lessons with more than 10 convergent questions per lesson

Subject	No. of CLIL lessons	No. of lessons with higher use of convergent questions	Total no. of convergent questions	Average no. of convergent questions used per lesson
Art	7	1	11	11
Biology	7	3	57	19
Drama	2	1	11	11
Geography	11	8	162	20
History	12	5	85	17
IT	3	1	17	17
Maths	9	4	48	12
Religion	4	2	35	17

Investigation of the function of the convergent questions in the CLIL classes reveals that they tend to fall into one of the following categories:

a. questions checking comprehension of content facts
b. questions on lexis specific to the content
c. questions on general lexis
d. questions checking language aspects (morphosyntactical)

a. Questions checking comprehension of content facts

The majority of convergent questions in the data fall into the first category on the above list, i.e. those checking comprehension of content facts and eliciting answers relating to content knowledge. This is a predictable pattern given the types of lessons observed, where the lesson objectives seem to be to impart and check subject information. Typical of the data on CLIL lessons in this study and typical of much classroom discourse is an IRF sequence with a display question by the teacher, followed by either a correct or an incorrect answer from the pupil, and completion of the sequence through a response by the teacher. The types of questions checking comprehension of facts within the triadic exchange were counted, as they occurred in lesson phases devoted to the teachers' presentation of content. The majority of the pupil answers consisted of one- or two-word replies. The following two examples are taken from a year 1 Biology lesson at school 2.

T: *when you focus on something near to you or close up or close, how you would say it, then what shape would the lens have?*
P: *thick*
T: *then it would be thick. It would be fat and round. Round or fat.*

T: *What do I do with a magnifying glass?* (The teacher has a magnifying glass in her hand.) *How close is Max to me now?*
P*: Close*
T: *He's close. He's huge. Can I read that better?*
P*: Yes*
T*: Yes*

The following four exchanges were recorded in a Biology lesson from School 3 and show IRF exchanges with various outcomes. Some exchanges show an unsuccessful attempt to elicit an answer, and others involve code switching in content explanations.

T: *What does the kidney make? What does the kidney make everybody?*
P*: Kidney stones*
T*: Yes but what does it normally make?*
P*: I don't know*
T: *What does the kidney make, Imke? What does the kidney make?*
P: *Digestive juices*
T*: No that is wrong.*

T: *What does the kidney make? It is in your workbook. The waste of the kidney is…*
P*: Urine*
T*: Urine yes …And where does the urine go to when it is made in the kidney?*
P: *To the* blaas*
T: *It goes down here yes the Dutch name is the* blaas and the English name is…?.. bladder*

T: *What do you see there?*
P*: A bone*
T*: A bone. What is it for?*
P*: The backbone*

The following example is from a History teacher with a low B2 level of English with a holistic score of 2 teaching in a third-year class.

T: *How did the war start?*
P: *Germany original made a pact ..a pact about it will attack Poland.*
T:*OK do you know the name of that pact?[convergent question]*
P*: No.*

The next two examples are from a year 1 Geography class. The first one is a convergent question with only one answer possible. The second question is a more open one with the form *'What happens?'* allowing for a limited range of possible answers. The teacher seems to want to elicit the words *'volcanoes and tsunamis'*. The latter she eventually supplies in the addition to the learner's answer.

T: *How many kilometres of pipeline can you lay with these pipes, do you remember the question?*
P: *396 kilometres*
T: *396 kilometres*
T: *what happens do you think..nobody's answered this question well yet..what's happening here where the ocean crust is coming into the continental crust. What happens?*
P: *Earthquakes*
T: *Earthquakes. What else? We've got mountains*
P: *Volcanoes.*
T*: Volcanoes and tsunamis. That's exactly what happens*

Some convergent questions in the data elicited correct, accurate and longer answers, and in these cases the IRF model can also be identified. In the following example the pupil response is reinforced by the teacher's elaboration and a confirmation of a correct answer.

T: *what is a theory?*
P*: One thing that can be true but it's not proven yet.*
T*: Something that can be true probably is true but it hasn't been proven a hundred per cent yet. That was a very good definition.*

The F move in the next exchange makes no direct comment or feedback on the learner's answer, but reverses the idea the learner has given in his answer.

T: *Why had he to destroy first the planes etc of Britain?*
P*: If all the planes and ships were damaged no troops from England can come in Europe*
T: *Imagine there is a big boat.. they bring all German soldiers on board and they go to England*

What is often missing from the IRF sequences are follow-up questions, as suggested by various writers (Echevarria and Graves 1998, Dalton-Puffer 2007), to allow the pupils to elaborate on the answer. This elaboration can be seen as an opportunity for the pupil to demonstrate skills of language retrieval as well as content comprehension. The example below is a specimen of an IRF exchange with no expanded sequence. The F move is an acceptance of the answer and no expansion by the learner is required. It seems that the teacher is satisfied with the answer and indeed this may well be an adequate response to the question.

> T: *What's the problem if things becomes drier?*
> P *you can't get food out of the ground*
> T*: yes very good.*

Not all the IRF sequences for checking comprehension of facts are limited to the three moves, and the data contains examples of teachers asking pupils to elaborate on their answers, possibly in an attempt to elicit the correct answers or to give opportunities for more elaborate replies. In the following example the teacher requests an elaboration on the initial one-word answer, thereby providing a chance for pushed output. The pupil is unable to retrieve the lexis necessary to expand the answer, and the whole sequence ends with the teacher's recast and a summary of the answer. The opportunity is given to the pupil, but the language required to make use of it is not within his linguistic resources, although the mixed code answer seems to indicate that he has grasped the content concept.

> T: *The higher you climb on a mountain…what happens to the temperature? The warmer or the colder it becomes?*
> P*: Colder*
> T*: why?*
> P*: you think it's warmer on *hower higher you come you are *dichter (L1)*
> T: *Closer*
> P: C*loser ..you are closer by the sun but the sun shine on the earth and the earth *wordt (L1) warm and its hold the warm *vast(L1)*
> T: *it keeps the heat yeah ok it keeps the heat*

The teacher in this example was given a holistic score of 2 with an assessed language level of B2, and made frequent use of code switches in meaning-focused interaction with pupils. In a lesson recorded later in the year with the same class and teacher, some pupil answers recorded were longer and more accurate in syntax and lexis use. The example below shows one pupil's performance with an extended answer. It is not intended to be seen as evidence of comparative language development with the class recorded earlier in the year, but merely gives an example of an extended response.

> T: *then the 19th century neighbourhood?*
> P: *There came new houses because it was cheaper because people who had to work in the factory lived close together and they had to be cheap houses as the people who work in the factories don't have much money and so they built little houses and cheap houses.*

b. Questions on lexis specific to the content

A less frequent yet still characteristic type of convergent question found in the data on the CLIL classes was that used for checking lexis specific to the content. At times the teacher asked a general question inquiring whether the pupils understood the lexical item occurring in the text. It is not possible to surmise from the data whether the teacher requires or expects a translation in L1 or a synonym in L2. At times he provides an answer with a synonym or an illustration of the use of the word and in other instances pupils provide an L1 translation. In the lesson with the highest number of convergent questions, most of these were concerned with checking knowledge of geographical terms.

T: *How is the attack called?* [convergent question]
P*: Biltskrieg*
T*: Blitzkrieg Yes OK*

T: *What was the name of this line that divides the globe into a northern part and a southern part?*
P: *The equator*
T*: And what is the name for the northern part?*
P: *Latitude*
T: *No I mean this part.*

The following is an example from a Geography lesson on the development of cities

T: *Sewage system. Do you know what's that?*
P: [demonstrates comprehension by giving L1 translation]

T: *Do you know prosperity?*
P: no
T: *prosperity is to have more income.*

T: *Do you have French in your schedule? A residence (in French) Do you know what that is? The residence of the Prime Minister or of President Bush. The residence. The residence. Do you know that word?*
P*: no*

T: *What's * landbouw in English?*
P: Farming
T: Farming. Agriculture

T: *what's a quadrilateral? A quadrilateral is any..*[prompts]*… you don't remember?*
P*: a figure with 4 sides*

c. Questions on general lexis

A less frequent type of convergent question found in the data is that of asking for an explanation or checking on meaning of general lexis, rather than subject-specific lexis.

T: *You have to think about how you formulate the answers. What do I mean with that? Do you think? Brian?*
P: how we do explain it in a way it's understand and desc..and understanding
T: Yes and you have to describe it a bit more.

d. Questions checking morphosyntactical language aspects

Questions dealing with specific grammar use in L2 occur infrequently in the CLIL data, but there are a few cases where teachers digress from the content and either proactively pose questions on morphosyntatical aspects of the language use, as in the example overleaf, or respond to pupils' questions.

T: *It's sometimes difficult to know when exactly do you use of and when do you use from because we only have simply one word. What is the Dutch word?*
P: [gives answer in L1]
T: [repeats L1 word] *and it's simple we only have *van but in English you have of and from*

Further examples of metalinguistic language and comments recorded in the CLIL lessons are considered in a subsequent chapter dealing with focus-on-form episodes in classroom discourse.

7.3 Divergent questions in CLIL classes

If it is accepted that open or divergent questions can potentially elicit extended and more complex answer forms, then it is of interest to investigate the number and type of divergent questions in the data. The data was examined to establish whether this type of question leads to opportunities for more pupil output. In that respect the findings could be considered disappointing, as in 42 of the CLIL classes there are zero occurrences of divergent questions. In the remaining CLIL classes where divergent questions do occur, teachers use them in presentation of content. If we look at the classes which record a score of 10 or above in the use of divergent questions, we find that in ten classes the occurrence of divergent questions is 10 and above.

Table 7.3

CLIL lessons with 10 or more divergent questions

Subject	No. of divergent questions	School	Year level	Teacher identity
Drama	10	3	1	3C
Biology	12	4	3	4C
Technology	12	1	1	1I
Geography	13	4	1	4H
Physical Education	13	2	1	2G
Geography	13	4	1	4C
History	14	4	1	4D
History	15	4	3	4D
Geography	16	3	1	3D
Religious Education	22	4	1	4K
History	23	3	1	3F
Religious Education	30	4	3	4K

Table 7.3 indicates that the highest number of divergent questions in presentation of content is found in a Religious Education class at school 4 with teacher 4K. This teacher uses divergent questions to a high degree in both his classes in the list and it seems this is typical of his teaching style. The high use of this type of strategy could also be task-driven as the activities in both the year 1 and year 3 class involved checking comprehension by asking learners to give their own interpretation of the texts. They were led and guided by the teacher, with an apparent expectation that the pupils express their understanding in their own words. In the example below the teacher, who receives a high holistic score, is in a year 1 class and checking comprehension of a text. The pupils' answers are given in their own language: they are not consulting the text to give the response. The teacher asks a long syntactically complex question as part of a sequence for checking comprehension. The question is divergent, asking the pupils to show understanding of the content by giving examples to demonstrate this, and one of several answers with the response content could have been given. This can be surmised from the subsequent talk that allows for other answers than the one given by the first pupil.

> T*: How do you see that this feature of God, that when you pray you will be given, and seek and you will find, how this text has a relation to this chapter? How can you see that this verse, this text verse was fulfilled during this chapter in the Old Testament?*
> P: *The people of Egypt.. of Israel, they ask and they get meat.*
> T: *They asked and they got their meat when they were in need they got if after they prayed to him.*

Other divergent questions posed in the same lesson ask the pupils to give personal information relevant to the subject, although the response is not always an elaborate one. Pupil 1 gives a monosyllabic confirmation of the question, asking for a definition of the phrase *'in charge'*. It is not clear from the subsequent short answer from the pupil whether he has understood the definition. The response of pupil 2 may have been influenced by a previous section of the lesson in the reiteration of the idea of receiving food and meat.

> T*: Is God in charge of your life?*
> P1*: What means in charge?*
> T: *Does he lead your life.*
> P1: *Yes*
> T*: Can you give me an example of how God is the leader in your life so to say*
> P: [no response]
> T: *Is there anybody who can give an example of how God leads the lives of his children?*
> P2: *well he gives us food and some ..most of the time health.*

The other subject lessons represented in the table and containing high numbers of divergent questions are Geography and History. The History lesson with the highest number of divergent questions is a year 1 class given by a teacher with a high holistic score and a high level of interaction and appropriate tasks. The divergent questions do not always result in elaborate or extended answers, as in the following example.

T: *Who are in trouble then?*
P: *The hunter*
T: *The hunter gatherers .yes very good. And what kind of thing could they do to stay alive?* [divergent question]
P: *Landbouw*
T: *and what is *landbouw in English* [translation strategy]
P: *Farming*

Other divergent questions in this lesson are more successful in eliciting extended responses. The teacher is clear in her request to hear what the learners can remember from the film. After two attempts from two pupils, who give answers that she seems to think unsatisfactory, she eventually hears a response that she accepts.

T: *Focus on the beginning of the year. Who remembers something from the video? Because we saw something about burying the dead.*
P1: *a man.. *die had a big bag and … he…*
T*: He had a backpack on his back and what about him?*
P1*: He sh..he ..*
T: *He showed things*
P1: *Yes he look for a *laps and the things*
T: *yes but one of the episodes because now you are talking about the first episode…..but we also saw a bit about what they did in History with the dead. Tessa do you remember anything?*
P2: *People think that there is afterlife*
T: *People believed that there is afterlife OK but now you are a bit I think referring to the text in the book I hope there is something you remember from the film. Victor?*
P3*: They did burn the bodies*
T: *Ok*

7.4 Procedural questions in CLIL classes

The sixty-nine CLIL lessons reveal a wide range for the use of procedural questions. Thirteen lessons recorded zero procedural questions in L2 while ten of the lessons showed more than ten questions per lesson.

Table 7.4

CLIL lessons with more than 10 procedural questions

School	Subject	No. of procedural questions	Year level	Teacher identity
4	Religious Education	36	3	4K
1	Geography	18	1	1E
3	History	16	1	3F
1	Geography	14	1	1E
2	Art	14	1	2A
3	Drama	13	1	3C
3	Art	12	3	3A
2	History	11	3	2E

All of the CLIL lessons contained some procedural questions and the table above shows those lessons with more than 10 used by the teacher. The Religious Education lessons in school 4 reveal the highest number of this type of question. The majority of them occurring in the CLIL lessons deal with the procedures of the task and checking the learners' progress in task completion. This is not always the case, and in the Geography lesson in a year 1 class the procedural questions are a mixture of those concerned with discipline and those related to procedures.

7.5 Convergent questions in English support classes

The number of convergent questions in the English support classes ranges from 4 to 41 and reveals a higher score than in English mainstream classes, averaging 16 convergent questions per teacher in the support classes and 12 per teacher in the mainstream classes. The fourteen support classes are conducted by seven teachers and the higher scores of twenty-two to forty-one convergent questions per lesson were recorded in classes given by five of this group of seven teachers.

Table7.5

Number of convergent questions in the English support classes

School	Convergent questions	Language proficiency	Holistic score
1	41	NS	3
1	28	C1	3
4	28	NS	3
4	28	NS	3
2	22	NS	2
3	16	C2	3
4	16	NS	3
2	15	NS	2
1	14	C1	3
2	10	C2	3
2	9	C2	3
1	8	NS	3
2	7	NS	3
1	4	C1	3
Total	246		

The low count of 4 convergent questions in one support class can be attributed to the task, which requires individual writing after a five-minute instructional phase by the teacher, during which the teacher asked no questions and the pupils asked a few questions in L2 to check the requirements for the task. The teacher was given a high holistic score, since pupils were on task and the working atmosphere was positive, but the interactional dialogue was conducted mainly on a one-to-one basis providing little data on teacher interrogatives to the whole class.

If we look at the other end of the spectrum for high scores of convergent questions, the lesson with the highest score was a year 3 class given by a native-speaker teacher. The holistic score was a 2 and there was a high level of teacher-initiated interaction between the teacher and the class, though with little extended pupil output. Convergent questions are a constant feature of the discourse in this lesson, and are asked in a quick tempo,

seemingly acting as a way of maintaining learners' involvement in the topic. This fast tempo seemed to be typical of this teacher's style of addressing pupils and of maintaining the rhythm of the lesson. Despite the high interactional score, the lesson was data-poor in the amount of corrective feedback or pupil-initiated discourse, as it was highly controlled by the teacher and allowed few opportunities for pupil output. It seemed that the teacher's objective was to maintain involvement in the topic, and not to elicit extended answers or to focus on accuracy of form. An example of interactional dialogue in the initial phases of the lesson demonstrates the imbalance in interaction between the interlocutors. In this section of the lesson pupils are asked how much money they would pay for various items.

T*: 40 euros. Would anybody agree with that? 35 euro for a shirt?*
P1*: no..that's a bit much*
P2*: yeah*
T: *what do you think?*
P3: *too much*
P4*: I ..I .. I agree*
T: *what?*
P4*: I agree*
T*: you agree.. anouk what about you?*
P5*: My shirt aren't 40 euro*
T: *Do you think that's too much for a shirt?*
P5*: yes*
T: *Would you give or pay 40 ..35.. 40 euros for a shirt?*
P*: Yeah*
T*: what kind of shirt? What would it have to be? Would it be.. would it have something written on it?*
P*: yeah*
T: *would it be like ..what do you call it a brand name? …Roland would it be a brand name shirt?*
P: *Yes.. mostly….i think..*
T: *Is there anybody here who never buys brands.. who doesn't want to wear anything that says Nike on it? Or what does it say on your shirt?*
P*: brand name*
T*: brand name.. I don't know if that's a … is that a brand ..who's wearing a brand right now that I can see? OK what brand are you wearing?*
P*: [gives the brand name]*
T*: would you buy those jeans if they were 50 euros?*
P*: Yes…I like it.*
T*: Is that a good price for a brand jeans?*
P*: yes*
T: *OK let's move on to the next thing.*

The above dialogue, although engaging the pupils in the lesson, was heavily weighted in favour of the teacher's share of participation in the discourse and gave little opportunity for pupil output. The pupils' responses were at times monosyllabic and with morphosyntactical inaccuracies. It is not known whether the teacher's intention was to use this initial activity as an introduction to the lesson or as a warm-up to the lesson topic, since no post-lesson evaluations were carried out. It could have been that the lack of extended and accurate pupil output was not relevant to the teacher's pedagogic purpose. The interrogatives in the above dialogue are, in the main, convergent questions, the purpose of which seems to be to engage pupils in the topic and to introduce the lesson

theme of value and price. This lesson had the highest frequency of both convergent and divergent questions found in the English support classes in this study.

Analysis of the occurrences of convergent questions in the support classes reveals three main functions of question use:

a. comprehension of lexis
b. aspects of morphosyntax
c. comprehension of the meaning of text.

a. Questions on comprehension of lexis

The convergent question for checking comprehension of lexis is the most characteristic type found in the English support classes in this study. As the pupils are in the bilingual section of the school and many of the teachers in this study are native speakers of English using only English as the classroom code, it could be assumed that convergent questions checking lexis comprehension would require responses with synonyms in the L2 rather than an L1 translation. The data shows that pupil responses are mainly given in English, but this is not consistently the case. Many of the convergent questions checking lexis are in the form of `*What does… mean?*` or `*What is ….?*`

The excerpt below is from a lesson where the teacher is checking comprehension of lexis, written as a list on the chalkboard. The lexis is related to descriptions of people's behaviour and the teacher checks comprehension of discrete words by asking convergent questions. Most of the pupils' responses appear to be guesses, not based on contextual clues, and this type of question is not known to be consistently effective in eliciting meanings of the lexis or in producing accurate or correct output. In the example below the teacher provides the meaning of a word after an unsuccessful attempt to elicit the full answer that she seemed to expect.

T: *What does dreaded mean. Dreaded.*
P: *If you don't want to do it*
T*: Why don't you want to do it?*
P: *Because its..you don't want to do it because ..I don't know how to explain it but it's not something…*
T: *Because maybe you're frightened of it?*
P: *(No response)*
T: *So its an object of fear.. it's dreaded.. it's frightening*

In this lesson the teacher asks questions in L2, but gives no explicit instruction or indication of the required code for the answer, with the result that the questions elicit mixed answers, some in L1 and some in L2. The choice of code seems to be dependent on the learners' linguistic ability in retrieval of known L2 lexis.

T: *If I call you a fool what do I mean?*
P*: you are an idiot.*

Here the pupil is able to provide a synonym. On other occasions where the teacher seems to be expecting a synonymous answer, the pupil is unable to provide the expected answer and the teacher provides it herself.

T: *What does laugh mean?*
P: [No response. The pupil seems to have problems finding a synonymous answer, either due to lack of knowledge of the lexis or for lack of alternatives. The teacher provides the answer.]
T: *When you go ha ha ha.*

T: *What's an Easter egg?*
P: [responds with L1 translation]
T: [accepts the L1 response]

At times pupils seem to lack the vocabulary required to give a synonym, and the response reiterates the lexical item used in the teacher's question. The response in the first of the following examples seems to indicate pupil comprehension but does not meet the expectations of the teacher, who then asks for an expansion which results a reply including the lexical item *win* that the teacher seems to expect.

Example 1
T: *Can you explain what beat is?*
P: *when you beat someone in a football game*
T*: Ah yes what is happening when you do that?*
P*: You win*
T: *You win.*

Example 2
T: *What is to bake?*
P: *That is when you bake something like a cake or.. in the oven*

Example 3
T: *What's race?*
P: [pause] *..a..a competition*

The strategy of asking a convergent question as a means of checking comprehension does not seem to consistently meet the teacher's expectations of a translation or synonymous response, although the pupils' answers in all three examples above clearly demonstrate comprehension of lexis. In a second lesson given by the same teacher with a high frequency of questions for checking lexis, she checks comprehension in a slightly different manner when discussing the topic of personal characteristics with the pupils. This type of more open question allows application of the lexis in order to demonstrate comprehension. The success rate in giving correct L2 answers will depend on the pupils' knowledge and retrieval of language. In the following example the pupil gives an extended answer; this could be due to the word '*arrogant'* being a cognate of the L1, enabling the pupil to provide a descriptive answer.

T: *What's an arrogant person like?*
P*: doesn't really take advice from people or else he just thinks he knows it*

Not all convergent questions on lexical meaning result in accurate pupil output: teachers are at times lenient in accepting an answer, adding their own elaboration. In the following example, the pupil gives an incomplete definition of the word '*invaluable'*, which the teacher accepts and then adds a comment to complete the definition.

T: *Invaluable. What's invaluable mean?*
P*: It's er .. so good you can't pay for it*
T*: Exactly. It's . it's .it's a strange word because you have valuable and if you have invaluable you might think it means not valuable but it actually means it's so valuable that you can't even put a price on it .. it's invaluable .. that's what it means right?*

It seems that the pedagogic objective of checking comprehension in the example above is to do exactly that; to check whether the word is understood, rather than to give an opportunity for learner production. In this sense the answer fits the pedagogic purpose. An alternative questioning strategy allowing pupils to demonstrate comprehension by applying the lexis rather than supplying synonyms could possibly lead to a more direct, clearer method of checking comprehension. This approach can be seen in other English support classes where the teachers suggest explicit strategies that the pupils can employ to demonstrate comprehension.

T: *Can you tell me..Explain to me..not in Dutch. You have to give me a sentence of define it. Give me a definition.yes ? of factories.*
P: *it's a building where you can make some thing. You have a factory from the silk for example and they make very er much silk for one product and they make it with many er*
T: *OK thank you.*

At other times the teacher overtly informs the pupils of the code that is acceptable in their answers.

T: *And lesson 66 you had to do. Can give me the answer to this one in Dutch if you want to. To record. To record.*
P: [gives answer in L1]
T: *yes*

T: *Can you tell what is drawing? Explain what is drawing. Drawing.*
P*: Er.You can make it with a pencil.* [Pause]
T*: But what do you make? Explain.*
P: *Er. I think a picture or something.*
T*: OK. Good.*

T: *Can tell me what is appear? What does appear mean?*
P*: When something comes maybe when someone appears you see him*
T*: Yes.*

T: *Can you tell what is .What does disgusting mean?*
P*: Terrible*
T: *Can you explain further please*
P *:Yes it tasted horrible.*
T*: OK*

b. Questions on aspects of morphosyntax

In the context of checking comprehension of grammar terms, English support teachers in this study reveal a lower frequency score for convergent questions than their colleagues in the English mainstream classes, although three classes conducted by two teachers in the sample of support classes did reveal a higher level of convergent questions concerned with pupil comprehension of grammatical terms and the rules of usage. The following example is taken from an interactive class with a high holistic score for the teacher, who, in this section of discourse, is drawing the pupil's attention to the tense of the verb *'shriek'* in the pupil's answer. To take the pupil through the process of analyzing why '*shriek*' is not acceptable in this context he asks 3 convergent questions and succeeds in eliciting the correct verb form.

> P: *Help me shriek Mary as she fell off.*
> T: *OK. You say 'shriek' but we have 'fell off'. What tense is that? What tense is 'fell off'?*
> P: *Past*
> T*: The past. So can we have 2 tenses in one sentence?*
> P: *No*
> T: *No. So what is 'shriek'? What will 'shriek' be then?*
> P: *Shrieked*
> T*: Yes. With ed then.*

In the first two minutes of this same lesson the teacher's convergent questions successfully elicit from the pupils quite precise definitions of the grammatical form and usage of the two past tenses: past continuous and past simple. The teacher appears to be focusing on the accuracy of the answer in the L2, in order to verify pupils' knowledge of the rules of use for these grammatical structures.

> T: *Can you tell me ..the past continuous ..when do we use this?*
> P: *When we have 2 actions that take place in one sentence and the two actions cross each other*
> T*: Excellent.. so ..the 2 actions they cross each other*

> T: *How do we make ..like how do we form a sentence in the past continuous grammatically?*
> P*: the form of to be*
> T: *The form of to be..am, is or are? ..can we use that?*
> P: *no ..was..*
> T: *Why..why not am, is or are?*
> P*: Because it's the past*
> *T: Because it's the past excellent.. yeah*
> P*: And ing*
> T: *And ing ..so wassing?*
> P: *Nee..* [laughs] *.. main verb plus ing*

The following example shows two initially unsuccessful convergent questions not resulting in a pupil answer. The teacher then reformulates to a more supportive question which successfully elicits the answer required. This apparent awareness by the teacher that the form of the question is vital to challenging pupils at the correct level assists

pupils to process information and within their linguistic competence to produce an accurate answer.

T: *what is the past simple? How do you form that?*
P*: Um …*[hesitates]
T: *What happens to the verb with the past simple?*
P: *Add ed*

This type of questioning is typical of this teacher, who, with an overt focus on the form and terminology of grammar items, is an exception among the sample group of support teachers. Requests for precise definitions of grammar rules and terminology are not found to the same degree in the remainder of the data on English support classes. In other such classes convergent questions are used occasionally to check linguistic knowledge, as shown in the following example:

T: *What's the present continuous tense?*
P: *Present continuous is doing ..going.. we are going ..they are doing*
T: *Hm.. that's right*

The data reveal a predictable correlation between the number of convergent questions concerned with knowledge of language and the amount of explicit metalinguistic language in L2. Teachers who frequently ask convergent questions about grammar use and terms will often add to the pupil's answer by giving further explanations and information on language usage in the L2.

c. Questions on text comprehension

Three of the fourteen lessons in this group revealed a higher use of convergent questions for checking comprehension of text meaning rather than lexis meaning. These questions appear to go beyond the checking of comprehension of isolated lexical items in the lesson material, as they require the pupil to retrieve and summarise information. This didactic strategy is a more demanding one for pupils, as it challenges them to provide a more elaborate answer with original language. The strategy is not consistently effective in achieving an elaborate and fuller answer and at times the pupils' answers are not particularly extended and output is limited to simple sentences giving short answers after prompts and support from the teacher. The use of this type of question is not extensively found in the CD and the following examples below are not representative of most of the teacher talk recorded in this study.

Two examples of this type of question are found in a lesson which deals with the characters in George Orwell's novel *Animal Farm*. The pupils were required to read a chapter for homework, and the teacher is checking their comprehension. The convergent questions mainly deal with the characteristics of individual characters in the story and ask pupils to summarise and describe the characters´ behaviour. The pupils are relying on their memory as the text is not directly accessible to them. The teacher's holistic score is high, pupils are on task and actively participating in the class, and the lesson ends with a group activity involving pupil-to-pupil interaction for developing a description of one of the characters. Typical of the teacher's questions in the introductory section of the lesson are those asking pupils to display comprehension of the text about the characteristics of the animals in the novel Animal Farm.

T: *Does Benjamin the donkey change er..now that the pigs have taken over or is he the same animal that he used to be? Tell us a bit more about him.*
P: *He's just the same.*
T: *Yeah.. short answer ..OK. He remained the same.*

The pupil's answer is in fact a reiteration of the lexis in the question posed by the teacher who, by extending the question to include the additional part '*or is he the same animal that he used to be?*, provides the answer and reduces the effectiveness of the question. The teacher's attempt to elicit an extended answer through the utterance 'Tell *us a bit more about him*' is abandoned and he continues to check understanding of the text. In the following example, the teacher is satisfied with the pupil's short answer.

T*: Does he side with Snowball or does he side with Napoleon?*
P: *Neither.*
T*: Neither one. Yes.*

The following excerpt is taken from a drama lesson where pupils are rehearsing sketches based on a story dealt with in a previous lesson. The teacher is giving instructions about the requirements for the sketches and using the story plot as a reminder to pupils.

T: *Think back to one about the leg of lamb story. What was the significant experience that changed her life?*
P: *she killed her husband.*
T: *She killed her husband and that led on to her covering up.*

The teacher does not demand an elaboration of the pupil's answer, but merely adds to the pupil's answer with an additional comment about the consequence of the character's action in the story. In the following example the teacher is checking comprehension of a text and is asking pupils to explain the negative and positive aspects of certain products of the sugar industry.

T: *Anyone else.*
P: *It's very luxury ..it's great luxury*
T: *So is that good or bad?*
P*: Good*
T: *Why?*
P*: I don't know* (laughs)
T: *Why is it good if sugar is a luxury? That only a few people can buy it. Is that good then?*
P: *No*
T*: No not necessarily.*

T: *what are the good and the bad things about cotton?*
P: *It was an industrial revolution. But they needed ..er .slaves and it was very expensive.*
T: *Erm..did cotton… you said it was the industrial revolution.. what do you mean?*
P*: Yes.. er..there came an industrial revolution when they made cotton.*

In addition to questions on text comprehension, there are a few instances of teacher questions that ask pupils to justify their answer, as shown by the example above.

7.6 Divergent questions in English support classes

In all but one of the English support classes the frequency of divergent questions was lower than that of convergent questions, ranging from 4 to 29 occurrences per lesson. The low score of two divergent questions in lesson 3 is task-related, in that after a four-minute instructional phase, the pupils work individually on a writing activity, with no further class-fronted input from the teacher. In two other lessons given by the same teacher with class-fronted teacher input, the data reveals a high level of dialogic interaction. The task in lesson 3 dictated the level of interactional talk and the number of teacher questions to the whole class. Table 7.6 shows the frequency of both convergent and divergent questions during presentation of content to pupils, and it seems that the incidence of divergent questions is task-led and not teacher-specific. Teacher ES1D, who scores highly on convergent questions in lesson 1, scores low in lesson 2. This is due to the nature of the task and the type of lesson, as the second lesson is an individual writing assignment.

Table7.6

Convergent and divergent questions in the English support lessons

School	Teacher identity	Convergent questions	Divergent questions	Language proficiency	Holistic score
1	ES1D	41	29	NS	3
1	ES1D	8	4	NS	3
1	ES1C	4	2	C1	3
1	ES1C	14	9	C1	3
1	ES1C	28	1	C1	3
2	ES2G	10	8	C2	3
2	ES2G	9	1	C2	3
2	ES2E	15	4	NS	2
2	ES2F	7	1	NS	3
2	ES2E	22	3	NS	2
3	ES3H	16	23	C2	3
4	ES4A	28	16	NS	3
4	ES4B	28	2	NS	3
4	ES4A	16	15	NS	3
Total		246	118		

When we investigate the divergent questions in the English support classes at a functional level, they seem to fall into one of two categories:

a. questions checking comprehension of a known text or of checking on knowledge of the topic
b. questions using the lesson text or theme to ask pupils to express their own opinions

Other divergent questions found in the CD of English support classes fall into the category of procedural questions dealt with in the next section. Divergent questions checking comprehension can also be described as display questions, with the pupil response falling within a range of possible answers. They potentially provide more opportunity for demonstrating knowledge than restrictive convergent questions and

require learners to show their ability to retrieve content and linguistic knowledge to express this. The length and complexity of the responses vary. On some occasions the syntactical form of an open question, that could elicit an extended answer from pupils, still only results in short answers.

a. Questions checking text comprehension

Divergent questions checking knowledge of comprehension of known material frequently occur in the data and are posed after the presentation of lesson material. They seem to act as a testing tool gauging comprehension of the material and as an opportunity for pupils to show their knowledge and to retrieve the language needed to express this understanding. In the example below the teacher is testing pupils' understanding of the implications of actions in the novel *Animal Farm,* and the pupil is able to provide an adequate answer that is accepted by the teacher.

T: *I was thinking of some ..some other animals*
P: *The sheep because they bloated ..um*
T*: Bleat is the word I think…*
P: [laughs]*..bleat.. they bleated while Snowball is talking*
T: *And why are they doing that?*
P: *Because they support Napoleon and they want to disturb Snowball's spee*ch

T: *Keep the change ..do you know what that refers to? When would somebody say to you oh just keep the change? Elaine?*
P: *when you er when something costs 10 euros and you give er 12 euros and you say keep the complaint. Er yes.. keep the complaint*
T: *keep the change*
P: *er keep the change*

This class with a higher level of divergent than convergent questions was given by a teacher with a high holistic score, and had a high level of interactional dialogue with pupils. The classroom discourse was highly controlled by the teacher with little spontaneous interaction initiated by the pupils. While the occurrence of divergent questions was high, the pupil responses are not often extensive or accurate. In the following examples, the teacher accepts the pupil's responses, even though they are syntactically incomplete and also not completely coherent in expressing a full answer.

T: *Who was born there? Important statesman?* [convergent question]
P: *er.. Winston Churchill*
T: *Winston Churchill. Yes. Why was he such an important statesman? Tessa when and why? … well maybe more when than why*.[divergent question]
P: *I thought in the second world war.*
T: *yes second world war..*

T: *What have you found about the white cliffs of Dover? The first thing that we will see of England this time round. An important landmark.*
P: *(*uses notes to give the first part of her answer*) They were um.. um cliffs which um ..formed part of the British coastline and um..err ..I thought they were also used in the second world war.*
T: *Used in the sense of ?*
P*: um ..the people..*

T: *in songs yeah in sentimental songs.*

The divergent questions appear to provide opportunities for an extended answer that are not always taken.

b. Questions eliciting opinions

Divergent questions expressing personal opinions are not typical of the data in this study. One lesson that revealed several questions of this type was given by a native-speaker teacher with a holistic score of 2. The excerpt below is typical of the teacher's style in this lesson in presenting content by setting up a discussion activity eliciting pupils' opinions about spending money. The focus appears to be on the participation of the pupils and the attempt to engage them in the discussion, and in some cases the pupils' answers are extensive. The divergent questions in this case are more characteristic of an 'authentic' mode of discourse with the types of questions that could occur in contexts outside the classroom, featuring question forms such as *'What about you?'* indicating a more naturalistic style of discourse in eliciting pupils' comments. The resulting pupil output is certainly an extended response and pupils are indeed engaged in the discussion, comparable to what might be found in a discussion between peers outside the instructional context.

T: *What about you Lianne..Lianne?*
P1: *If you have the money why don't you .. why shouldn't you.*
T: *So if you have it ..wh… what about giving some money to charity? Would you do that?*
Ps: *(answer inaudible)*
T: *How much.. shh.. wait a second .. Wijnands .. what about you?*
P2*: I would put it on the bank*
T*: On the bank yeah...*
P: *and then give it to my children and my grandchildren and the …*
T: *So you would basically set up some sort of stock of money for your family*
P2: *yeah but I mean if you have 10 million euros to spend you can have a perfect lifestyle and all the rest of your money.. er.. you make your kids happy*
T: *And what about charity?*

7.7 Procedural questions in English support classes

In the group of fourteen support teachers, six of them used more than 10 procedural questions per lesson, with the highest score of 35 observed in a class with a native-speaker teacher. Most of the questions in this lesson occurred in one-to-one interaction while learners were engaged in a writing activity, so this high use can be said to be task-led. Some of the questions were used for checking on the learners' progress in completing the task, such as:

T: *Which part do you want to do today?*

T: *Do you have a piece of paper?*

Other questions were more demanding and more in-depth, challenging the learner to produce a different kind of answer.

T: *Is it difficult to actually write something? Why is that?*

Another support lesson with a high number of procedural questions was in a year 3 class given by a teacher with a high holistic score and a C2 language proficiency score. The discourse was mostly teacher-initiated and the learners seemed engaged in the lesson. When we examine the data on this lesson we can also see that the number of divergent questions was higher than that of convergent questions. This is not the usual pattern for question forms observed in the rest of the lessons, and may be typical of this teacher's mode of discourse. Only one lesson from this teacher was recorded, so this cannot be verified.

The following table shows the number of procedural questions occurring during the English support lessons. When a comparison is made between the support teachers and the mainstream teachers, it appears that the former are providing more L2 input in the form of peripheral language and taking opportunities to initiate interactive discourse by the use of referential and communicative questions.

Table 7.7

Procedural questions in the English support classes

School	Teacher identity	No. of procedural questions	Language proficiency	Holistic score
3	ES3H	35	C2	3
1	ES1D	32	NS	3
1	ES1C	12	C1	3
2	ES2F	12	NS	3
1	ES1D	11	NS	3
4	ES4A	10	NS	3
4	ES4B	9	NS	3
2	ES2E	8	NS	2
4	ES4A	8	NS	3
1	ES1C	7	C1	3
2	ES2G	2	C2	3
2	ES2G	1	C2	3
2	ES2E	1	NS	2
1	ES1C	0	C1	3
Total		148		

7.8 Convergent questions in Mainstream English classes

The mainstream teachers in this study conformed to the general pattern of classroom discourse, with a high frequency level of convergent question forms used for the initiating move in exchanges with pupils. When data from the English support teachers' and the subject teachers' discourse is compared with that of the mainstream English teachers, the latter show a higher level of L1. As this is the case, and due to the level of code switching, the frequency of convergent questions in L2 in the mainstream classes will accordingly be lower than in the other two classroom contexts. An additional aspect ascertained by analyzing the function of convergent questions in the mainstream classes is that the teachers apparently make a deliberate and conscious decision to use the L1 in

lesson phases dealing with cognitive processing of grammatical structures. As discussed in the section on code switching, teachers will explicitly highlight this to pupils, giving as a reason that it is appropriate that the explanation and checks on comprehension of the grammar be given in L1. However, despite the code switching and the higher level of use of L1 in lessons, the data on the mainstream classes revealed many instances of L2 interrogatives in interactional exchanges, with teachers using questions in various ways. The data gathered came from eleven mainstream English classes with nine different teachers. The frequency of convergent question use is teacher-specific, with the number of occurrences ranging from 0 to 31 per class.

Table 7.8

Convergent questions in the Mainstream English classes

School	Teacher identity	Convergent questions	Language proficiency	Holistic score
3	MS3D	31	C2	2
5	MS5A	19	NS	3
1	MS1G	18	NS	3
5	MS5B	15	C2	3
4	MS4I	14	C1	2
1	MS1F	13	C2	3
1	MS1F	12	C2	3
3	MS3E	9	C2	2
1	MS1H	2	C2	3
2	MS2C	0	C2	1
2	MS2C	1	C2	1
Total		134		

At one end of the spectrum, one teacher (teacher MS2C), observed in both year 1 and year 3 classes, revealed no use of L2 convergent questions in one class and had only one example in the second class. The teacher received a low holistic score and pupils did not appear to be fully engaged in the classroom activities. The activity in the year 3 class was a reading exercise, with the teacher assigning to each pupil a paragraph to read aloud. No follow-up checks on comprehension occurred and the teacher posed no questions on content meaning. The pupils were then required to commence a writing task based on the text that they had just read out. This lesson yielded an extremely low level of interactive discourse with little data to assess or examine. The year 1 class by the same teacher showed a minimally higher level of question forms in the teacher talk but the most of the interrogatives was in the L1 and did not directly provide suitable data for this study.

At the other end of the spectrum is teacher MS3D with a high level of convergent questions in L2, having a count of 31 occurrences of such questions in the class. This higher level of interaction between teacher and pupil allows for more opportunities for teacher and pupil talk, although not always resulting in the outcome that the teacher might hope for. In one example of an exchange in this class, the teacher seems to be attempting to elicit a response in English from a pupil whose language proficiency is not at a sufficient level to give an appropriate answer in L2. The sequence shows the teacher in an exchange with the pupil in L2 about his opinion of a book he is reading and about which he is expected to write a report. The pupil wants to change his book for a different one and the teacher engages in an exchange in order to find out why he wants to do so.

T: *Is it boring?* [no response from pupil] *Why is it boring? Can you explain it in English?*
P: [either doesn't understand or is unable to answer it English. No response.]
T: [repeats the question more slowly] *Can you explain in English? .. you can't.* [The teacher seems to decide to use a direct and syntactically easier question] *Is it too difficult? Do you understand it?*
P: [replies in L1] **Dat wel, maar…..*[translation: yes, but…]

This sequence contains a mixed bag of interrogatives, seemingly intended to elicit a pupil response, and while it was not directly successful in this case, the teacher seems to be consciously engaged in seeking alternative interrogative forms to enable the pupil to participate in a meaningful exchange. This meaningful communication contains convergent question forms and can be classified as having an elicitative function to obtain confirmation of comprehension and an opinion on the content of the book.

Analysis of convergent questions in the learning process in the mainstream classes reveals two main areas in which convergent questions are used:

a. questions on lexis comprehension in both codes
b. questions on aspects of morphosyntax

a. Questions on comprehension of lexis

Some questions relating to the comprehension of lexis can be classified as translation-type questions where the teacher asks in L2 for a translation of a lexical item into L1. An alternative type of question type is one requiring a synonymous answer in L2. Invariably, the teachers do not specify that the answer be given in L1, but it is difficult to see how, given that the convergent question is functioning as a check on comprehension, it could be expressed otherwise. Many of the questions, such as the following, seem to operate as requests for translations into L1 in order to provide an immediate check on comprehension.

Translations - English into Dutch

T: *I'd like to do that orally. You know what orally is? What is that ..orally?*
P: (gives incorrect answer)
T: *No. Orally is *mondeling* [translates into L1]

T: *"Do you know what veal is?"*
P: [answers in L1 that she does not know]

T: what does that mean ..alligator?
P: [provides an L1 translation.]

T: *"A trouble shared. Can somebody tell me what it means?"*
P: [gives an answer in L1]
T: [repeats the L1 answer and expands]
T: *what are pets?*
P: [correct answer in L1]
T: [repeats answer in L1]

These are typical questions checking comprehension of lexical items and they occur in most of the mainstream lessons in this study. Upon examining the context within which translation-type questions are posed we obtain more information as to when they occur. The first example below is a typical instance of checking comprehension in mid-flow of an interactive dialogue, apparently with the aim of eliciting known language and also periodically checking comprehension of individual lexical items. At times the lexical items are relevant to the lesson topic, as in example 1, and at other times there are more ad hoc and random checks on lexical comprehension, as in example 2. Convergent translation-type questions tend to occur after the pupil has given a correct response to the teacher's questions about comprehension. In the example below the teacher subsequently asks for a translation of '*weather forecast'* into L1, resulting in a correct translation from another pupil. This lesson features a high use of L2 by the teacher in procedural language and in presentation of content with explanations of lexical items, but little spontaneous L2 output by the pupils.

Example 1

T*: If you would have listened to English news shows about the Netherlands what would the weather forecast have been?... In English.*
P1: [answers in L1]
T: *What is a weather forecast?*
P2: [gives a second answer in L1]
T: [teacher accepts the L1 translation] *OK ..good .. so what would the radio have told you about the weather today?*

The following example contains a request for an L1 translation of the word '*rush'*. This request, while not emanating from the lesson content, was an opportunity for the teacher to check comprehension of the instruction. The teacher in this class uses a high level of L2 and seems to be conscious of taking opportunities to introduce and practise potentially new items in her output. This can be seen in her exploiting of opportunities that arise in seemingly 'natural' and spontaneous speech, as in the following:

The pupils are finishing a short test and the teacher wants to collect all the papers.

Example 2

T: *have you finished Mandy? We'll have to round off now*
P: [asks teacher in L1 if she can finish her answer]
T: *Yes rush.....* [to all pupils].. *listen.. I just said to Mandy rush. What does it mean?*
P: [translates into L1]
T*:* [repeats pupil's answer in L1] *now push your tables back together now.*

The use of the word *'rude'* arises from a comment by the teacher about a pupil's answer and does not directly form part of the lexis relevant to the topic of the lesson.

T*: Yes I think it's a bit rude…do you know what that means.. rude*
P: [gives correct answer In L1]
T: [repeats in L1] *anyway you're allowed to say that.*

These types of 'interruptions' to the flow of teacher talk are typical of this teacher but not representative of the data on other teachers. This behaviour is also seen in the second lesson with the same teacher and pupils, with examples of a high number of metalinguistic explanations of language, which will be dealt with later in this chapter. In the following example from another lesson, the teacher asks for a translation during interactive dialogue and then checks the pupils' comprehension

T: *"Who knows what foggy is?"*
P1: [gives correct answer in L1]
T: *foggy is when you can't see..it can be dangerous*
P2: [gives answer in L1]

This is a typical example of the type of convergent question found in the data and while the answers are given in L1, it is possible that in the mind of the teacher a synonym or synonymous phrase in L2 would be the preferred answer. Yet looking at the rest of the exchange and the pupil's responses, this does not seem to be the case.

Translations - Dutch to English

On the other side of the coin are the convergent translation-type questions asking for a translation from L1 to L2 after a response given by the pupil either in L1 or with the incorrect lexical item.

P1: *My grandfather and grandma have one and they always get the belt for the dog… er..no .. do you call it a …?*
T*: No you don't call it a belt. What do you call it? Can anyone think of the ..belt?*
P2: [answers in L1]
T*: But what do you call it in English?*

The answer in L1 in the following example seems to result not from the pupil's lack of knowledge of the lexical item 'rain' but more from reluctance to use L2. This can only be a speculative assumption, but it seems that the code use for classroom interaction has not been fully established by the teacher and mixed code use by pupils is therefore common in this lesson.

T: *What would the weather forecast say?*
P1: [answers in L1]
T*: Ok…in English*
P2*: rain*

Here the pupil gives an L2 answer which is a translation from the L1 and not correct. The teacher follows up with a request for a correct L2 answer.

T*: How do you call that… The working room … what do you mean by that?*
[gives the L1 word with a rising intonation]
P1*: Ja..*[confirms the teacher's answer]
T: *How would you call that? The working room it's not really a working room*
P2*: study room*
T: *Study.. yeah you can also simply say 'study'*

The teacher in the following examples is a native-speaker of English and the class was conducted almost entirely in L2, so the L2 answer seems to be the norm in pupils' responses.

P*: It doesn't fit there.*
T*: Don't you think so?*
P *I got tired and I got sick.*
T*: what would be the one that is most appropriate?*
P*: sick*
T: *Yes*

In the following example, the response is in L2.

T: *What do I mean by pull-out… the Click pull-out?*
P*: It's a little book in the magazine that you can pull out.*
T: [repeats pupil answer in L2]

In the data there are a few examples of procedural questions which the teacher exploits as learning opportunities. The following example is not typical of the data but is typical of this teacher, where she uses the convergent procedural question as an opportunity to present and teach language.

T: *Is anybody absent today? Can anybody translate that for me?*
Ps: [No response]
T: [translates into L1 and then asks again] *"And is anybody absent today?"*
Ps: [respond by providing the names of the absentees]

This is a year 1 class, highly interactive with a high level of code switching by the teacher and with the pupils on task throughout the lesson. This method of translating questions into L1 and then reiterating the question, so that it becomes accepted as the mode of checking comprehension, seems to be typical of this teacher's repertoire of strategies, and one that introduces the L2 structure in an effective and comprehensible fashion. The use of initial translation and then switching immediately to the L2 will reinforce the structure as input and increases the pupils' exposure to the L2. This seems to produce in them the expectation that the teacher will use the L2 as the preferred code in the CD, and consequently the level of her L2 input is higher.

b. Questions on aspects of morphosyntax

In general the mainstream English teachers frequently code switch to L1 when asking questions about aspects of grammar use. This is often prefaced by an indication to pupils that this will assist their comprehension of morphosyntactical aspects of the L2. Although the L1 is frequently used in teacher explanations and questions, it is not a constant feature. The data shows some instances of the use of teachers' use of L2 in questions for checking comprehension of the terminology of grammar before going on to elicit and give examples of the item. It seems that accuracy in the '*naming of parts*' is considered part of the knowledge of the subject, as is the use and application of the correct tense or part of speech. These types of teacher questions appear frequently in the mainstream language classes, and while the initiation move by the teacher is in L2 the code used in pupils' responses is largely in L1 and accepted by the teacher as appropriate and correct. In the examples below it is difficult to see how the pupils could answer in the L2, as the

questions seem to demand a translation to L1. Indeed the teacher poses the question in L2 and is satisfied with an L1 answer.

> T: *What I want you to do is to look at adjectives nouns and verbs. Julia what is an adjective?*
> P: [answers in L1]
> T: [Confirms answer in L1 by praising pupil and repeating the answer in L1] *Bart. Can you give me an example of an adjective?*

> T: *Does the passive ring a bell to you? What is that.. the passive?*
> P1: (answers in Dutch)
> T*: Ok..but* .. [switches to L1 asking "what is it]
> P: [answers correctly in L1]
> T: *Ok could you give an example? "*

In the example above the teacher continues in L1 to give an extended explanation of the grammatical item. In addition to requesting a translation of a grammar item to L1, the teacher's questions in L2 acted as elicitation of the rule of use of the grammar item, as in the following example where pupils are asked to give the rule of application of a verb tense.

> T: [asks the question in L1 and then repeats in L2] *when do we use the present perfect?*
> P: [gives answer in L1]
> T: [confirms and adds to pupil's answer in L1]

Another instance of a convergent question type is, to use Long's term (1981), a *forced choice* question, where the teacher gives a pre-defined choice of answer, as in the following example.

> T: *'What should it be? Pay or pays?"*
> P: *pays*

In the lesson cited above, the teacher is checking the present simple verb morpheme with an exercise focusing on the difference between the use of the simple present and the present continuous. This highly interactive lesson with many exchanges between the teacher and pupils shows a high level of L2 use. In the following example the teacher is checking whether the pupils have understood the grammatical difference by asking them to justify their answers.

> T: *"What word gives you the indication that it's got to be present continuous?"* [translates into L1 and repeats] *What word gives you the indication that it's present continuous?*

The teacher then repeats the question in L2 to the next pupil after he gives his answer in the exercise. At a later point during the same activity, the teacher shortens the question to:

> T: "*Which word?"*
> P: [responds in L2 with the correct word from the text]

Later still, during the homework check and after a pupil gives his answer, the teacher asks: "*Why is it present simple?"* and receives and accepts an answer in L1. After a subsequent answer the teacher adds a comment:

> P: [gives an answer] *Why aren't you answering?*
> T: I *would also accept 'why don't you answer.' Why is that …what ..for what reason would that be alright?*
> P: [answers in L1]

The teacher then accepts the answer by confirmation in L2.

7.9 Divergent questions in mainstream English classes

The data reveals a higher number of convergent than divergent questions in all but one of the mainstream English classes. This is an unsurprising result, as divergent questions are less frequent in CD in general, and in foreign language classes they are cognitively more challenging, as a fluent and comprehensive answer requires more effort in retrieval of knowledge of the lexis and structure. The CD in two of the mainstream classes revealed no use of divergent questions, but these were the same two classes with a low level of interaction in the lessons and little use of convergent questions. The remaining data showed that the number of divergent questions was lower overall than that of convergent questions. The average use of convergent questions by mainstream teachers was 12 per lesson, while the average number of divergent questions was 6. The table below shows the difference between the number of convergent and divergent questions observed in each mainstream class and gives the language proficiency and holistic scores.

Table 7.9

Convergent and divergent questions in the Mainstream English lessons

School	Teacher identity	Convergent questions	Divergent questions	Language proficiency	Holistic score
4	MS4I	14	8	C1	2
3	MS3D	31	8	C2	2
2	MS2C	0	0	C2	1
2	MS2C	1	0	C2	1
3	MS3E	9	1	C2	2
3	MS1G	18	14	NS	3
1	MS1F	12	15	C2	3
1	MS1H	2	7	C2	3
5	MS5B	15	7	C2	3
1	MS1F	13	4	C2	3
5	MS5A	19	4	NS	3
Total		134	68		

Data on the one lesson which had a slightly higher number of divergent than convergent questions showed 12 occurrences of convergent questions and 15 occurrences of divergent questions. This small discrepancy in question type is not significant. This class is highly interactive, with much of the class time taken up by teacher-to-class interactional discourse and with turn-taking controlled by the enthusiastic teacher and a high level of seemingly deliberate code switches focused on comprehension of both lexis and grammatical structures.

This mainstream class with the higher occurrence of divergent questions was given by the same teacher who used the translation-type questions to good effect. The teacher received a high holistic score and maintained a high level of interactional teacher-pupil discourse. In presentation of text and lesson material the teacher seems to be continually keeping the pupils on their toes with a discourse operating at several levels simultaneously. The lexis and grammar of the lesson topic are both covered in the teacher talk, and at the same time there seems to be an underlying objective to take opportunities and create learning opportunities by expanding the content matter to include additional material. These additional opportunities building on the input pupils receive may possibly increase their output. The claim that the input provided by the teacher in this lesson might lead to improved learner output cannot be substantiated, but it can reasonably be assumed that this could be the case. And it is not possible to ascertain whether the teacher was aware of the layered nature of her classroom discourse: we can only describe what was observed and hypothesise on the effectiveness of this approach.

In other examples of this type of teacher talk, divergent questions are often used to initiate these additional learning opportunities. In the following example, the teacher is introducing a text from the course book about an Indian family in Britain, apparently taking this as an opportunity to provide information about cultural aspects of Britain and to use the L2 as the code for this part of the lesson.

> T: *This is about other people..Dr Rampakush - a strange name - and Emil. Now can someone tell me why they always use these o..very often use these Indian names in the book in this book?* (translates the question into L1)
> P: [gives answer in L1]
> T: [asks again in L1]
> P: [gives answer in L1]
> T: [asks in L1 if pupil can say it in English and prompts] *In England…*
> P*: are very much Indian people..*

The teacher continues by assisting and correcting the pupil's utterance, including the use of a countable modifier, but is still looking for an answer about the presence of many people of Indian origin in Britain and therefore poses the divergent question again.

> T: *Why are there so many Indian people in England? Why are they there and not in Holland for example?*
> P: (replies in L1)
> T: *Exactly. Could you say it in English? Because…*
> P: *..because India was a colony of England*
> T: *Perfect. Because India was a colony of England.*

The teacher continues for a brief while to elicit from pupils in L2 any knowledge they have of other countries that are former British colonies. Then she directs the procedure of the lesson to the listening activity. After the listening activity the teacher continues with divergent questions about the content by asking "*What did you notice about her accent?"* After a brief explanation of the differences between the Indian accent and RP, the teacher continues by checking pupils' comprehension of the grammatical aspects of the present continuous and by checking lexis in the listening text in both L2 and L1. This example is typical of this teacher's exchanges with divergent display questions not only to elicit knowledge from the pupils, but also to provide deliberate opportunities to elaborate and

add to their linguistic resources. These digressions from what could be considered the grammatical and lexical content of the lesson appear to be intentional and seem to function as moments to provide additional language and information.

In a different class with a native-speaker teacher with a high holistic score the interaction seems to be strongly guided by the teacher, with few divergent open questions. Most of the interrogatives are related to the morphosyntactical aspects of the lesson, with explicit explanations of tense use and lexical items added by the teacher. The few examples of divergent questions are generally directed toward further explanation of linguistic aspects. An example of this is in the following exchange, which occurs after two pupils have presented a spoken dialogue in front of the class. The other pupils are asked what they thought of these two pupils' performance and whether they heard any errors.

> T: *What did you think of the dialogue between Andy and Nora? Was it OK? What did you think? Did you think it went OK or did you not hear?*
> *P1: yeah… yeah*
> T*: It was OK?*
> P1*: OK*
> T*: You've got a comment?*
> P2: [comments on the use of 5th May in the dialogue]
> T: [continues in L1 to explain how to express dates in written and spoken English]

7.10 Procedural questions in mainstream English classes

In the data on the mainstream classes the number of observed procedural questions was lower than in the English support group. Teachers' generally higher use of code switching during lessons probably accounts for this lower number. In maintaining discourse flow and checking on task completion these teachers often switched to L1 to address pupils. This might have been a deliberate choice by the teacher, who may have considered that all the language input had been given during explanations in L2, so that there was no need to continue in this code. It could also be that the switch to L1 was intended to accommodate the learners in some way and to make them feel comfortable in class. This hypothesis can be applied to one data-rich lesson with a high level of interaction and a teacher with a high holistic score. The teacher posed no L2 procedural questions and had a high level of code switching in presentation of content. The class was a year 1 group, and this may have also been a factor underlying the use of the two codes.

In a highly interactive third-year class, teacher MS3D had a high level of L2 procedural questions and initiated L2 exchanges with learners about task completion. Of the eleven mainstream classes, two featured more than 10 procedural questions per lesson.

Table7.10

Procedural questions in Mainstream English classes

School	Teacher identity	No. of procedural questions	Language score	Holistic score
3	MS3D	19	C2	2
1	MS1G	15	NS	3
4	MS4I	8	C1	2
1	MS1F	8	C2	3
5	MS5B	7	C2	3
2	MS2C	5	C2	1
5	MS5A	3	NS	3
2	MS2C	1	C2	1
3	MS3E	1	C2	2
1	MS1H	1	C2	3
1	MS1F	0	C2	3
Total		68		

7.11 Summary

The number of divergent questions was lower than the number of convergent questions in all but a few of the lessons observed. This corresponds to what is generally the case in classroom discourse. The questions asked by teachers in all three contexts seemed to fall into one of four areas of language. The first area is that of checking comprehension of facts, the second is checking on lexis specific to content, the third is questions on general lexis and the fourth is checking aspects of morphosyntax. The most frequent question type in the CLIL lessons is that of the convergent question checking comprehension of content knowledge. The usual IRF pattern occurs in much of the interaction and is in the form of a convergent question as the initiation move, with a response which is followed by a confirmation or some other type of feedback. A few extended IRF sequences are observed in the History, Geography and Religious Education classes but are not generally characteristic of classroom discourse in this group of CLIL lessons. The data reveals that the support teachers pose a larger number of divergent questions than teachers in the other two contexts, thus giving pupils opportunities for more extended responses. As these opportunities are not always taken by the pupils, open or divergent questions do not automatically result in an expanded utterance. The mainstream English teachers use twice as many convergent as divergent questions. A common type of question used by this group of teachers involves asking for translations of discrete lexical items, either from L2 to L1 or vice versa.

Chapter 8 Findings on giving corrective feedback

8.1 Introduction

The chapter presents the results and findings on how the teachers participating in this study give corrective feedback (CF) when reacting to learners' output. The CF is grouped into nine categories of action that are applied to the three instructional contexts in which the fieldwork was performed. The indicators on the OP covering feedback and interactional dialogue are related to the following nine areas of didactical strategies:

a. explicit modelling of the correct answer by the teacher
b. recasts to learners
c. metalinguistic comment in L1
d. metalinguistic comment in L2
e. clarification requests and confirmation checks
f. eliciting answers from the class
g. summarising the answer
h. modifications and additions to pupils' answers
i. prompts

A comparison is made of the frequency count of each category to identify differences and similarities in the teachers' approaches to giving corrective feedback. The findings show that the preferred choices for feedback in each group vary according to instructional context.

8.2 Explicit modelling

When using this first aspect of CF, teachers respond to pupils' answers with a model of the answer, accompanied by explicit demonstration of the form and a request to the learner or learners to repeat the utterance. All three educational contexts reveal a low frequency in the use of this strategy.

Table 8.1

Explicit modelling in feedback

	n	%	av
CLIL	8	10	1.00
Support	9	29	2.25
Mainstream	7	36	1.75

xn = number of occurrences
% = percentage of lessons with the use of the strategy
av = average number of occurrences recorded in lessons during which the use of this strategy was identified

In the group of CLIL lessons, 10% of them feature the use of this strategy, with a total of 8 occurrences. In both groups of English teachers the percentage is higher than in the CLIL lessons. The English support lessons indicate that 29% of the classes recorded its

use, with a total of 9 occurrences, and 36% of the English mainstream classes had the use of this strategy, with a low total of 7 occurrences. The data reveals that although a higher percentage of lessons in the mainstream classes show the use of this strategy than lessons in the other 2 contexts, the average number of occurrences is highest in the English support classes.

Explicit modelling occurs infrequently in the CLIL lessons in the databank. One example occurs in a Geography lesson where the teacher is assigned a high holistic score and has a C2 level of language proficiency. This teacher is one of a few who were observed using effective scaffolding techniques. In one lesson she explicitly models the language needed to describe the process of convection in climate, while at the same time using gestures to demonstrate the concept. The whole class is required several times to repeat the language and actions simultaneously with the teacher.

> T: *Convection is things warming up, rising to a higher place, cooling down, getting heavy, sinking, join in folks, warming up, getting lighter, rising, say the words..*
> Ps: (repeating 2 times the sequence of events)

While this type of modelling of both language and subject-specific concept was used in several classes, it is not typical of most of the CD in the CLIL lessons in the databank.

This strategy does not frequently occur during the English support lessons. In one class with a native-speaker teacher assigned a high holistic score, the topic of one section of the class is the formation of the 3rd person verb form in the simple present. There are several examples of the teacher directly modelling the form of the answer with a request for repetition.

> T*: Goes. Can you say it for me? Goes*
> P: *goes*
> T*: Yeah*
>
> P: **weshes*
> T*: yeah.. say washes*
> P*: Washes*
> T*: Washes. good.*
>
> P*: Kiss*
> T: *yeah how do you spell it though? Kiss…? Kisses*
> P*: kisses*
> T*: kisses. What did you put on the end? What are the last 2 letters?*
> P*: s*
> T: *es.. did you have es?*
> P*: yes.*
> T*: Good.. otherwise it's k.i.s.s.s and that's not correct.*

This is followed by a pupil-initiated discussion about the rule for the formation of a verb form, which leads to the teacher giving the grammar rules, and then a high level of pupil contributions in both L1 and L2 on how to apply the rule. This type of feedback is not typical of the English support lessons in the data, with most teachers not focusing on overt modelling of language form.

In the group of eleven mainstream English teachers very few instances of teacher modelling of phonological or morphosyntactical aspects of language were observed. Only three of the teachers used this strategy in giving corrective feedback or in eliciting answers from pupils. One teacher recasts inaccurate phonological production and explicitly models the answer to the pupil. This results in a repair by the learner.

P: *on the *eisland*
T: *island. You don't pronounce the s*

The cases of explicit modelling in mainstream classes are isolated and infrequent and do not seem to figure as a preferred option in giving feedback to pupils.

8.3 Recasts in feedback

In all three educational contexts the strategy of using a recast with no explicit link to the form is a technique more frequently used than explicit modelling, with 40% of CLIL lessons, 42% of English support lessons and 72% of mainstream lessons showing the use of this strategy in corrective feedback. The table below indicates the total number of occurrences recorded in the data, with the percentage of lessons from each group using this strategy and, in addition, the average number of occurrences found in the lessons in which this type of strategy was used.

Table 8.2

Recasts observed in the three contexts

	n	%	av
CLIL	64	40	2.3
Support	26	42	4.3
Mainstream	24	72	3.0

n = number of occurrences
% = percentage of lessons with the use of the strategy
av = average number of occurrences recorded in lessons during which the use of this strategy was identified

Twenty-seven of the CLIL classes in the study record occurrences of recasts in teacher corrective feedback, with a low average of 2.3 occurrences per lesson. These 27 classes are from all four schools with a bilingual stream taking part in the study, with school 4 recording the highest number of classes with teacher recasts.

The subject of Geography is more highly represented in table 8.3 as having the largest number of classes where teachers use recasts. Content classes in History and Biology also score highly on the number of classes recorded with this type of corrective feedback. The next step in the analysis of the CD is to consider the types of recast and to establish whether there are particular aspects of language that are dealt with more frequently than others. The areas of language covered in CLIL teacher recasts are morphosyntactical, phonological and lexical.

Table 8.3

School and subject area in CLIL lessons with occurrences of recasts

School	No. of lessons recorded using recasts	Subjects and number of lessons using recasts
1	7 classes from 24	Geography (3) History (2) Biology (1) Information Technology (1)
2	5 classes from 13	Geography (2) Biology (1) History (1) Physical Education (1)
3	5 classes from 11	Geography (1) Art (1) History (1) Physics (1) Social Studies(1)
4	10 classes from 22	Geography (3) Biology (2) Religious Education (2) History (1) Information Technology (1) Maths (1)

In the CLIL lessons the recasts of morphosyntactical aspects of the language occur less frequently than other types of recasts. Such morphosyntactical recasts are mostly given immediately after the errors occur, but rarely are learners required to self-repair. As the majority of the recasts do not require reiteration by the pupil, it is not possible to judge the efficacy in terms of learners noticing the modification, nor is it possible to conclude that the repair will lead to the adjustment of learners' language, and thus contribute to language progress in future production. It may be that these recasts requiring no self-repair are missed opportunities for both teaching and learning, as learners are neither pushed to demonstrate that the recast has made any impact on their level of language knowledge, nor to show that they are they able to incorporate the modification into their own production. The examples below are typical responses to morphosyntactical errors in this study, with no requirement to self-repair and with no metalinguistic comment on form. Some of the teacher responses deal with tense use, some with syntax and others with countables, plurals and modals.

In the following example the teacher recasts the tense use but with no demand for the pupil to self repair. This same lesson also has a high number of teacher non-responses to errors in phonology, lexis and morphosyntax.

P: *I don't understand it.*
T: *I didn't understand it ok.*

This type of teacher response with a recast of correct use is typical of many of the occurrences of feedback on aspects of morphosyntax with no demand for self-repair. Other examples are:

P: *lesser food*
T: *less food*
P*:* (not required to repair)

P: *louses.. we see lots of louses.*
T*: lice..lice in English*
P*:* (not required to repair)

T: *Who would like to tell me something about safety?*
P: *It was safe because there are very much small mats after..*
T*: many mats*
P*: the gate… the box* (not required to repair)
T*: ok after the box. Yeah so every time you had to jump off something there was a mat to jump on.*

P: *It shows much detail.*
T*: Yes many details*
P: (not required to repair)

P: *How much children are there..*
T: *How many children …*
P: (not required to repair)

P: *They don't can*
T*: They cannot…*
P*: (*continues the answer with no repair to the modal verb*)*

In the following examples the input is embedded by the teacher in a type of syntactical recast. It is not a direct recast of the exact form, and the 1st person subject pronoun in the pupil utterance is not used in the teacher's response.

P*: I no understand this map working.*
T*: You don't understand how you have to work with this map.*
P: (not required to repair)

P: *There isn't no facts*
T*: Yes there are no written facts*
P: (not required to repair)

The data reveals a few phonological recasts by CLIL teachers, such as the example below:

P*: buried* (phonological error)
T: *buried* (pupil not required to repeat the correct version)

In the following example the pupil makes a phonological error in a reading aloud activity.

P: *the *plagew*
T: *we say plague, not *plagew, plague*
P*: no response*

Recasts dealing with lexis form the majority of the recasts made by CLIL teachers. The lexical items relate to specific content and also include general lexis. Some of the lexical recasts fall into the category of code switches with a response in L2 to an L1 utterance. Others are L2 teacher responses to L2 answers from pupils. Below are two examples of translation recasts which are typical of some of the lexical recasts.

P*: Miss.. we got a *kikkervis*
T*: Oh you got a tadpole*
P*: a tadpole yeah that's it*

In the above example the learner immediately repairs the utterances with no overt requirement stated by the teacher. This does not always occur, as demonstrated in the following example.

P: * *vlooien (*L1 answer*)*
T*: fleas.. yes that's right.. fleas*
P: *[no repair]*

Other lexical recasts provide the preferred lexical item for the context, as in the following example. In neither example was the learner required to produce the corrected version.

P: *about the land*
T*: about the country. Yes.*

T*: What happened to the country ..to the people? Many died so what was…what was the effect of the Black Death?*
P: *Many people died so the cities were .. lesser populated.*
T*: Yes..the population decreased.*

In the following lesson the lexical recast is given and a pupil reiteration is forthcoming after an incorrect lexical item is used.

P: *we have to presentate it*
T: *present it*
P: *present it*

The following shows a teacher recast with a lexical and a morphosyntactcal recast resulting in a repair by the pupil.

P: *more greater*
T: *larger*
P: *larger*

One class with a relatively high number of recasts is an interactive class with a high level of teacher input and with some pupil-initiated discussion. The teacher is given a high holistic score and the task is a teacher-led discussion. An additional feature of the lesson is the relatively high number of divergent questions posed by the teacher. These may be task-driven, as the task is a class discussion on a religious topic, requiring pupils to give personal opinions. The recasts in the lesson are at times in response to L1 utterances, both morphosyntactical and lexical, with the teacher providing the L2 utterance but not

requiring the pupil to self-repair. At other times recasts are on phonological and morphemic aspects of language.
The analysis of the recasts by CLIL teachers reveals that the majority deal with lexical use, with a few responding to L1 lexis, with the teacher providing the L2 equivalent with a translation recast. Phonological recasts occur marginally more frequently than morphosyntactical recasts.

Table 8.4

Type and number of recasts by CLIL teachers

Morphosyntactical	Phonological	Lexical
11	19	34

Most of the CLIL teacher recasts are not followed by an instruction to repair or modify the answers. When a repair is forthcoming, this seems to result from pupils' taking the initiative to provide a repair and not on the teachers' requests for repair. This lack of requests for pushed output is typical of the CLIL teachers' discourse in the IRF exchanges. The low frequency of requests for elaboration and repair in the data reflects previous studies on classroom discourse, as detailed in chapter 3. Teacher recasts do not result in a self-repair, and in fact more often result in the learner ceasing to speak and the teacher picking up and continuing the discourse flow. This 'cork' on pupil utterances may prevent expansion and repair, and be unwittingly initiated by the teacher.

In the group of English support classes 42% show the use of recasts in CF, with a total number of twenty-six occurrences, sixteen of which are recorded in one lesson. If this high score in one class is eliminated from the results, the data shows a low frequency score for the remaining classes. It can thus be concluded that this strategy is infrequently used by the English support teachers in this study.

There are occasional recasts from teachers on aspects of morphosyntax, as in the following example:

P: *How much words?*
T*: How many words.*
P: (not required to self-repair)

P: *I don't insist.*
T*: I didn't.*
P: *I didn't insist*.

P: *She weared a really nice dress.*
T: *She wore a really nice dress.*

In the example above the pupil was not required to self-repair, as the grammatical focus of this section of the lesson was the past continuous and the expected reply was "*She was wearing a really nice dress".*

The lessons showed some use of lexical recasts as in the following example.

P: *The aula*
T: *the hall ..yep.* (pupil not required to self-repair)

Another type of recast deals with phonological aspects. In a lesson with a high number of phonological recasts it can be seen that the majority are task-driven as they occur during a reading-aloud activity. During this task, the teacher corrected pupils' incorrect phonological utterances, as in the following example:

P: **bussy*
T*: busy*
P*: a busy woman*

If this group of task-driven phonological recasts is excluded from the analysis, it can be seen that the English support teachers do not frequently focus on phonological aspects of language. Other occasional occurrences are observed, as in the following example:

P*: Illness and dying – were dying of *cancer (pronounced as *kanker) in great numbers*
T*: Yes cancer .. in English we say cancer*
P*: (not required to repair)*

In this class, a few minutes after the exchange above took place, a second pupil correctly pronounces the word '*cancer*' correctly in an answer. It cannot be ascertained whether this was due to the teacher's recast or whether the second pupil already knew the correct pronunciation. In general, mispronunciation seems not to be an impediment to message comprehension, and improving pronunciation does not seem to be a priority for the English support teachers. I would maintain that this lack of focus on phonological aspects is typical of foreign language teaching in general and not specific to the participants in this study.

The mainstream classes reveal a somewhat different pattern from the English support classes, as 63% of the classes recorded instances of recasts in corrective feedback, with recorded occurrences from seven of the teachers. The recasts are spread over the three language areas of morphosyntax, phonology and lexis. The following example shows various forms of recast.

P: *fourth of December go swimming and 4 o'clock Maisie. The five *te December*
T*: Fifth of December*
P*: Fifth of December eleven o'clock.*

P: *Get up. I get up at ..erm.. 7 o'clock *nou ongeveer (L1)*
T*: about*
P*: about. Have lunch on school. Do your homework..*
T*: At school ..at school*
P*: do your homework… at school. At school I do my homework. Go to bed. I go to bed on..*
T*: At*
P*: About ..at 9 o'clock ..about*

The pupil uses the incorrect preposition for location and time in the second utterance, which the teacher recasts and the pupil repairs in the subsequent utterance '*at school*'. In the third pupil utterance, the pupil makes another prepositional error '*to bed *on*' and the teacher recast of *'at'* is rejected in favour of *'about'* which was the teacher recast after the

first utterance and given as a translation. It seems in this case that the initial recast has been noticed by the learner and incorporated into her answer later in the exchange.

In the following example the teacher provides a recast to the pupil, which results in a repair. The teacher adds a modification of the repair which is not taken up by the pupils.

> P*: Hallo. How is this?*
> T*: Who*
> P*: who is..*
> T*: Who is this? Mmm..Who is this please you would say.*
> *(Pupil not required to repair)*

As in the other two contexts, phonological recasts are not a common feature of classroom discourse in this study. In one mainstream class a large number of phonological recasts are recorded, but this seems to be due to the task set by the teacher. The activity is an exercise requiring pupils to read aloud a paragraph in a text. The teacher corrects mispronunciation with recasts but not with a requirement for self-repair in all cases. Other phonological recasts are incidental, with no overt focus on the correct pronunciation, and again with no requirement to repair.

> T: *OK. Ruby?*
> P1*: *groceries (*Pronunciation 'o' as in hot*) have been bought by many people.*
> T*: Ja. Wat zijn dat.. groceries? (*correct pronunciation*) (*translation: What are groceries?)
> *(*Followed by a discussion in L1 on groceries*)*
> T*: OK. Ruby?*
> P1*: Groceries have been bought by many people.* (with correct pronunciation of 'o' in 'groceries')

In the following example there is an overt correction of mispronunciation and with a repair.

> P*: toilet *downstar one*
> T*: downstairs ..downstairs*
> P*: downstairs*

The following is an example of a recast dealing with correct word stress.

> P: if you're interested.
> T: if you're interested.

In mainstream English classes, teacher recasts on morphological aspects of language and on use of lexis occur more frequently than recasts on phonological aspects.

8.4 Metalinguistic comments in feedback in L1 and L2

Metalinguistic comments in interactional dialogue are defined as comments and feedback from teachers on aspects of language use, with overt explanations or examples of language use and rules. This is in contrast to recasts, where the correct structure is modelled back by the teacher with no explicit comment or explanation on rules of use. In

this study, both English language contexts show a high level of use of metalinguistic comments in L2, with 73% of the mainstream lessons and 71% of the English support classes showing the use of this type of feedback. It occurs less frequently in the CLIL classes, with 15% of them recording instances of metalinguistic comment in response to pupils' answers. This is a predictable pattern that one would expect to see, with language teachers displaying and checking knowledge of language use more frequently than CLIL teachers. It is of particular interest to record how frequently and in which area of language CLIL teachers explicitly explain language rules and form.

Table 8.5

Metalinguistic comment in feedback in L1

	n	%	av
CLIL	1	1	1
Support	4	7	4
Mainstream	88	91	8.8

n = number of occurrences
% = percentage of lessons with the use of the strategy
av = average number of occurrences recorded in lessons during which the use of this strategy was identified

The table above shows the data for metalinguistic comments given in L1. It can be seen that the mainstream classes have a high use of this type of strategy. The table below shows the frequency of the use of L2 in giving metalinguistic comments.

Table 8.6

Metalinguistic comment in feedback in L2

	n	%	av
CLIL	20	15	2
Support	76	71	7.6
Mainstream	53	73	6.6

n = number of occurrences
% = percentage of lessons with the use of the strategy
av = average number of occurrences recorded in lessons during which the use of this strategy was identified

As the CLIL teachers in general showed a high and consistent use of L2 in their discourse, it is not surprising that metalinguistic comments in L1 are almost non-existent in the data. The use of L2 in giving metalinguistic feedback was not frequent, with only 15% of the classes recording the use of this type of comment. The lesson with the highest score is a Geography lesson with a high holistic score: the teacher overtly demonstrated a focus-on-form in six exchanges during this lesson. This type of interaction is atypical of the rest of the group of CLIL teachers. The following examples illustrate the teacher's overt focus-on-form in spelling and in the use of the countable modifier.

P: *isn't of with only one f in case of two*
T: *Yes..you are quite right my dear. Very good. Of is one f. Only when you switch the radio on and you can switch the radio off then you use two fs.*

P*: It shows much details.*
T*: Yes many details. Many, many details, Remember that if you want to say many or much. Many you use for things you can count. Many people or many tables or many trees over there and much you use to say oh there's much milk in the bottle.*

The generally low level of metalinguistic comment by CLIL teachers is corroborated by the teachers' answers on the questionnaire, which reveal that the general belief among the bilingual teachers in the study is that their main priority and objectives are concerned with teaching the context concepts and not with focusing on language form or accuracy. The view expressed is that the responsibility for dealing with overt language meaning and rules of use lies with the English support teachers and not with the subject teachers.

In the group of English support classes 71% record a use of metalinguistic comments in L2. Only one teacher (teacher G) uses L1 in giving metalinguistic comments, with four instances of L1 comment. A consistent use of L2 in classroom discourse by English support teachers was already demonstrated in the previous chapter on code switching. Not all the English support classes include the use of metalinguistic comments, with four classes recording no explicit comments on language use in either code.

Table 8.7

Occurrences of metalinguistic comment by English support teachers in L2 and L1

School	Teacher Identity	L2	L1
1	ES1D	2	0
1	ES1D	0	0
1	ES1C	2	0
1	ES1C	12	0
1	ES1C	10	0
2	ES2G	0	0
2	ES2G	8	4
2	ES2E	12	0
2	ES2F	0	0
2	ES2E	7	0
3	ES3H	1	0
4	ES4A	2	0
4	ES4B	20	0
4	ES4A	0	0
Total		76	4

L2 = English
L1 = Dutch

In addition, the data reveals that individual teachers do not demonstrate consistent behaviour in all their classes when giving L2 comments on language use and form. The use of metalinguistic comments in L2 by teacher C can be seen to be a consistent option, resulting in a high score in two of the classes. The pattern in teacher ES2G's discourse is

different, with one of the lessons revealing no occurrences of L2 comment, and the other having eight occurrences.

Teacher ES1C in one lesson spends a few minutes on an explanation in L2 of the use of the past progressive tense in English and on checking pupils' comprehension of the terminology. In the following examples of this, the teacher spends time explaining the formation of the simple present.

> T*: Do your parents read a lot?*
> P1*: yes they do.*
> T*: very good you said yes they do not yes …good*
> P2*: she .. she*
> T: *Pardon?*
> P2*: She.. she*
> T: *Did I miss one?*
> P2*: Yes she do*
> T: *You said yes they do*
> P3*: She said she do*
> P2*: I have yes I ..yes she do .*.in plaats van* …[translation: instead of] (continues but is inaudible)
> T*: Ok but your parents it's your mum and dad ..yes they do*
> P4*: In Dutch it's she if I say she it's er one people or one girl people or more people*
> T: *Mmm..well in English it's not.. so you must learn it.*

As well as metalinguistic comment in the area of morphosyntax, teachers give overt comment on lexis. In the following example the teacher comments on the use of the lexical chunk in the phrase *'around one o'clock'*.

> T: *What time do you have lunch at school? It's the same for everybody.*
> P*: I have around one o'clock.*
> T*: Yes. Around one o'clock. That's a good expression. Around one o'clock. It doesn't mean to say it's exactly one o'clock but it's near one o'clock. Ten minutes to one or ten minutes past one, yeah? Around one o'clock. That's a good expression.*

The mainstream teachers show a more varied pattern of code use than the support teachers in giving comments on form of language. The quantitative data recorded in observations of L2 and L1 metalinguistic comment on pupils' answers is given in table 8.8.

Table 8.8

Occurrences of metalinguistic comments by mainstream teachers in L2 and L1

School	Teacher Identity	L2	L1
1	MS1G	10	1
1	MS1F	9	8
1	MS1H	0	1
1	MS1F	5	10
2	MS2C	0	0
2	MS2C	0	11
3	MS3D	3	1
3	MS3E	8	4
3	MS3E	8	4
5	MS5A	4	25
5	MS5B	8	21
Total		55	82

L2 = English
L1 = Dutch

The table details the number of occurrences of metalinguistic comment given by the mainstream teachers in both L2 and L1, and shows that the majority of the occurrences are in L1, with only one teacher giving more examples in L2 than in L1 (teacher MS1G). The teacher is a native-speaker of English, and this could explain why there is a higher number of comments in L2 than in L1. The teacher was assigned a high holistic score and the classroom discourse was highly interactive, with a seemingly high level of engagement by pupils. The native-speaker role though is not necessarily a factor in the use of L1 and L2 comments. Teacher MS5A in the group is also a native-speaker of English with a high holistic score, and has a high use of L1 in metalinguistic comments. It could be that teacher MS5A, as a simultaneous bilingual, is choosing to use L1 as a pedagogical mode for grammar explanations and that teacher MS3G is not equally proficient in L1 and opts for her preferred code (L2) in order to explain grammar points more precisely.

If comments in L1 are taken into account, then mainstream teachers demonstrate a higher frequency of use than teachers in the other two groups, with ten of the eleven mainstream English classes recording instances of metalinguistic feedback in the L1. This result confirms that the emphasis in some mainstream lessons is on focus-on-form explanations. Even in classes where pupils demonstrate a good level of English, the teachers seem to be concerned that comprehension of the terminology is checked with L1 and that pupils use their knowledge of L1 grammar rules to compare the rules of use in the two codes. The level of comment in L1 does not always preclude a high level of interaction in the class, as demonstrated by the one class with the highest use of L1 metalinguistic comment, which is a highly interactive lesson.

If the metalinguistic comments given in both L1 and L2 are counted, then the number of occurrences recorded in the mainstream classes is greater than those in the English support classes. When the occurrences of metalinguistic comment in L1 are discounted and only the L2 comments are considered, then the support and mainstream teachers show no significant differences in the results for average use. The metalinguistic

comments given in L2 can be allocated to one of three areas of language: morphosyntactical, phonological and lexical.

Many of the metalinguistic comments on aspects of morphosyntax are given in code mixtures of L1 and L2, with the grammatical terminology given in L1.

> P*: it's rainy.*
> T: *No not rainy. Rainy is a *bijvoegelijk naamwoord.*
> [translation: adjective.]

Other examples add comments as to how the structure is formed.

> P*: When starts the meeting?*
> T*: When starts the meeting *zeg je niet. Je zegt 'when does the meeting start?" Klinkt een beetje raar, maar zo zeg je dat. Wanneer doet de vergadering beginnen.*

*[translation: You don't say 'when starts the meeting' you say 'when does the meeting start.' Sounds a bit odd but that's how you say it. 'When does the meeting start?']

Lesson MS5A by a native speaker with a high holistic score features a high level of metalinguistic feedback in both codes, with the majority in L1. This is a year 1 class and it seems that the teacher is focused on comprehension of syntax and grammar. When incorrect answers are given, the teacher asks questions that require learners to justify their answers and to rethink their utterance.

> P: *He always want.*
> T*: * Wat is het onderwerp?* [translation: what is the subject?]

In this way the teacher aims to lead the pupil to focus on the rules for verb formation in the present simple and finally the pupil produces the correct form of the 3rd person singular. In the following example the teacher draws the pupil's attention to the different formation of the plural form of *mouse* in L2, comparing this to how the singular and plural of the word are expressed in the L1.

> P*: mouses*
> T*: *wij zeggen muis, muizen en dan mouse and mice*

[translation: we say mouse, mice and then mouse and mice.]

All the above examples of interaction include the use of L1 in the teacher's feedback, but this is not always the case. The majority of the mainstream teachers use L2 at some time during feedback. In the following example the teachers spends part of the lesson in an explanation of the use of *some* and *any,* giving the rule for use in L2.

> T: *if you ask a question and you expect the answer to be yes you use some*.

Comments on phonological aspects are rare, as demonstrated in the section above on recasts. The following extract gives an example of the teacher drawing the pupil's attention to the English pronunciation of the letter 'd' when spelling the months of the year.

P*: D* (Dutch pronunciation*)*
T*: in English*
P*: D* (in RP pronunciation

In one section of a lesson the pupils act out a role play in front of the class, during which the teacher does not give immediate feedback. This is given after the completion of the role play. Pupils were not required to repair their utterances after the feedback, but were informed of their errors after the activity. This was a typical mode of action for this teacher who did not request that learners repair their utterances.

> T: *You said over ..you used another preposition.. of ..information of and it should be about..information about.*

8.5 Clarification requests and comprehension checks in L2

Clarification requests are made by teachers in response to learners' answers with the aim of eliciting a modification of the answer in some way. Lyster allocates clarification requests, together with other strategies, to the category of prompts (2007:108), but in this study clarification requests and prompts are counted as two separate indicators. A clarification request indicates that the pupil response needs modification in some way, but the pupil is given no assistance in identifying the area of language to which modification should be applied. It can be in the form of a question of non-comprehension such as:

> T: "*What do you mean by that?" or "I don't understand what you mean?" or "Can you explain what you mean?"*

A comprehension check can take the form of a teacher response to the pupil's answer in order to check meaning or to enable expansion of the utterance.

Table 8.9

Clarification requests and comprehension checks

	n	%	av
CLIL	37	23	2.3
Support	19	35	3.8
Mainstream	18	45	3.6

n = number of occurrences
% = percentage of lessons with the use of the strategy
av = average number of occurrences recorded in lessons during which the use of this strategy was identified

The data reveals that the use of this CF technique is found in all contexts, with 53% of CLIL lessons, 42% of the English support group and 54% of the mainstream classes registering clarification and comprehension checks. The three contexts were examined for any differences in the frequency of use of this type of corrective feedback, with the following results.

While the percentage of classes using this CF technique is 53%, only a few of the CLIL classes feature it frequently. Two Biology classes and a Religious Education class show the highest use. One Biology lesson given to a year 1 class by a native-speaker teacher with a high holistic score shows a few examples of this type of technique. The topic of the class is the human eye, and the teacher is eliciting learners' knowledge of what causes sight deficits. The learner provides an adequate answer indicating a cause of bad eyesight, but the teacher pushes the learner to explain what she means.

T*: What can cause that?*
P*: accidents*
T*: accidents. How does that work?*

In the following example is a similar use of a clarification requests asking the learner to elaborate on the answer.

P*: a magnifying glass*
T*: a magnifying glass and what does a magnifying glass do?*

An example of accepting the answer as appropriate but asking for more output from the learner is shown in the following example from a History lesson. The topic is a visit to the UK and a discussion of the landmarks, in particular the white cliffs of Dover.

T*: what do you know about the white cliffs?*
P*: I thought they were also used in the Second World War*
T*: used.. in what sense?*

In general, clarification requests and confirmation checks are not frequently observed in the CLIL classes.

The English support classes have the lowest use of this type of CF, with six of the classes registering no occurrences in the data. The class with the most examples shows some requests, mainly concerned with checking learners' knowledge of lexis, as in the following example:

T*: what does disgusting mean?*
P: *Terrible*
T: *Explain further please.*
P: *It tasted..erm..horrible.*
T: *OK*

This was a class given by a native-speaker teacher who was assigned a high holistic score. The practice of overtly asking learners to explain more and to give more examples is typical of this teacher, but not seen in most of the other support classes. The same teacher shows a variety of feedback techniques, and in the two recorded lessons some learner-initiated interaction in the discourse occurs.

The data shows that while 54% of the mainstream classes in this study contained comprehension and clarification checks in L2, the total number of occurrences in these classes is only eighteen, with six classes recording no use of this type of strategy. Clarification requests checking understanding of lexis and morphosyntactical aspects are often in L1, and this observation correlates to other findings ascertained from the OP,

such as the use of L1 and L2 in metalinguistic comments. Even so, a few examples are found in the data on mainstream classes. The following is taken from a third-year class with a teacher assigned a holistic score of 2, who also scores highly on incidents of code switching. In this section of the lesson, the teacher asks for appropriate syntax for what a weather forecast talking about rainy weather might sound like. The class was given a low score for pupil initiation and in general the pupils did not appear to be highly engaged in the lesson.

T: *What is the weather like?*
P: *rain*
T: *What does a newsreader say? Does he say 'rain'? Does he only say'rain'?*
P*: it is raining.*

In a year 1 class with a teacher who has a holistic score of 3, the topic of the lesson is *House*s and the learners are asked to describe their house. The teacher asks for clarification, a request seemingly understood by the learner, and then proceeds to provide the elaboration herself. A missed opportunity, maybe, for the learner to self-repair and to elaborate on the initial answer?

P*: downstairs and upstairs two toilets.*
T*: Two toilets upstairs or downstairs two?*
P: * *nee [translation: no]*
T: *oh one upstairs and one downstairs*

8.6 Eliciting from others

As discussed in chapter 3, teacher talk makes up the major part of classroom discourse whereas learners' input is at times limited and restricted. Eliciting from others is a feedback technique that could be employed to increase the learners' share of the discourse. The indicator used in this study includes proactive elicitation from the group as a didactic technique and also eliciting following a learner's response that in some way needs to be modified, added to or corrected. After the latter, one of several actions can be taken. The teacher can supply the correct answer, can throw the response back to the learner and wait for a modified answer, or he can address the class and elicit from one of them the required answer. Eliciting from others could be considered a technique for whole-class involvement. It may also be a method of maintaining the tempo of the lesson without waiting for the answer to come from the first learner. The table below shows the number of occurrences of this type of feedback in the three contexts, all of which show a low use of this strategy.

Table 8.10
Eliciting from others

	n	%	av
CLIL	20	19.4	1.5
Support	7	42.8	1.1
Mainstream	10	36.3	2.5

n = number of occurrences
% = percentage of lessons with the use of the strategy
av = average number of occurrences recorded in lessons during which the use of this strategy was identified

The data from the OP shows that this type of action does not occur as frequently in the CLIL classes as in the other two contexts. A few examples are recorded, but in general this is a technique employed very infrequently by the CLIL teachers in the study. In a third-year History lesson given by a teacher assigned a holistic score of 2, examples demonstrating this type of strategy were observed. After posing a convergent question, the teacher receives an inadequate response. He immediately asks the rest of the class to correct the answer. One pupil provides the answer and the teacher continues the questioning session with the first pupil.

> P1: *there was a treaty*
> T: *do you know the name of the treaty?*
> P1*: No*
> T: *anyone else?*
> P2: *(provides the correct answer)*
> T*: that's right.* (Continues questioning pupil 1 on his content knowledge).

This type of quick and immediate referral to the rest of the class occurs frequently in this lesson. In the case of retrieving content knowledge it seems an effective way of eliciting the answer; when the pupil is unable to retrieve the answer due to lack of knowledge, then it is probable that no amount of prompting or scaffolded feedback will elicit the correct response. On the other hand, this type of feedback may well elicit an accurate answer when the focus is on the language that learners are required to have in order to give an accurate answer.

In the fourteen support classes, six of the lessons reveal examples of teachers eliciting from other pupils in the cases of an inaccurate or incomplete answer from a pupil. It seems that the teachers' preferred response is to give the correct answer themselves or to provide a recast.

The percentage of mainstream classes containing this strategy is a little lower than that of the support classes, but it occurs more frequently than in CLIL classes. In the examples below from three different teachers, they all seem to open up the floor to the class and invite them to consider another answer.

> T: *She said 'How late is the meeting'. What's wrong there? How are you supposed to say this*?

The following example is from a lesson given to a year 1 class by a teacher with a high holistic score and a C2 language level. The teacher receives an inaccurate answer, does not give the pupil explicit feedback but checks with the class to elicit an accurate answer.

> T: *who says it's OK?*

The following dialogue occurred in a third-year class with a teacher assigned a high holistic score and a high level of C2 for language proficiency. Two pupils had performed a role play in front of the class and the teacher invites comments from the rest of the class.

T*: comment please*
P*: ummm*
T*: Is this something that could have taken place in England?*
P*: well ..er .. not in England because the customer said I've never been IN Great Britain*
T*: Good. Well done. Was it a real life conversation? Why? Why not?*
[pupils seem reluctant or unable to respond in L2 and eventually use L1 to respond]

This type of referral to the class to comment on pupils' performance does not result in much elicited output in L2 but it may not have been the teacher's intention to elicit this output.

8.7 Summary of the pupil's answer

One indicator on the OP registers occasions of teachers' use of a summary of a pupil's answer in the F phase of the IRF sequence. The teacher provides a summarized alternative version of the answer. This response could result from several factors. It may be due to a perceived lack of attention from the rest of the class, or it may be that the teacher wishes to confirm to the pupil that the answer is correct, thus reinforcing the content message. It could be that the answer is not accurate in form, and in summarising the answer the teacher is providing alternative language models. It could also be that even though no errors are present in the pupil's answer, the teacher wishes to highlight one aspect of the answer, and does so by summarising the answer. It may also be that summarising is used in a pragmatic manner, as a way of keeping control of the discourse and maintaining flow of the interactional dialogue with pupils. As no post-lesson interviews were carried out, it is not possible to ascertain what the teachers' intentions were when summarising answers.

Table 8.11

Summary of answer

	n	%	av
CLIL	24	18	2
Support	3	21	1
Mainstream	0	0	0

n = number of occurrences
% = percentage of lessons with the use of the strategy
av = average number of occurrences recorded in lessons during which the use of this strategy was identified

During the lessons not all the mainstream classes focused solely on morphosyntax and lexical practice, but even in the mainstream lessons with a more content based focus, there were no occasions of teachers summarizing the learners' answers. In the group of CLIL teachers 18% of the lessons showed summaries of learners' answers, and in the English support group 21% of the lessons record the use of this strategy.

The strategy of summarizing learners' responses is not frequently used by CLIL teachers and very few examples were found in the data. The English support teachers occasionally

responded to a pupil's answer with a summary of this answer. This type of feedback response does not appear often in the data. During interactional dialogue and in responding to pupils' answers, none of the mainstream teachers summarised the pupils' answers in any way. This could be because the pedagogical aim in this type of instructional context is to produce accuracy of form. An answer requiring accuracy of form does not lend itself to a summary, as it either meets the target language model or not. The data showed that in the F part of the IRF exchange, the accuracy of learner responses in this group of lessons is confirmed or otherwise, and is not summarised with regard to content information.

8.8 Modifications and additions to pupils' answers

The data records the occasions when teachers modified and added to a pupil's answer in some way. This feedback response to a learner's answer consists of either a partial repetition of the answer with additional language added by the teacher, or a modification in some way of the given answer. This type of feedback turn in the exchange differs from a recast, which acts as an input for correction to syntax, lexis or grammar.

In teachers' modifications the language produced in a learner's answer in terms of lexis, morphemic or syntactical accuracy was not always used in the modification, nor was it questioned or commented on. The teachers seem to use the answer as a springboard for the introduction of additional or alternate lexis or for an elaboration of syntax form. In this study this strategy of modifying and adding to pupils' answers was observed in CLIL classes, in cases where the answers were lexically and morphosyntactically correct. This option for responding to pupils' utterances could be seen as a way of broadening the input by adding alternatives to their answer.

Table 8.12

Modifications of learners' answers

	n	%	av
CLIL	115	52	3.3
Support	30	78	2.7
Mainstream	13	45	2.6

n = number of occurrences
% = percentage of lessons with the use of the strategy
av = average number of occurrences recorded in lessons during which the use of this strategy was identified

The highest number of corrective feedback interventions by CLIL teachers was recorded under modifications and additions to the learners' answers. In this group 52% of the lessons recorded the use of this strategy in interactional dialogue, with an average of 3.3 occurrences per lesson. Examples of modification seem to occur in interventions when the teacher adds subject-specific lexis which the pupils are not providing. The following excerpt of CD taken from a Religious Education lesson is an example of this:

P: *everybody knows there is a big hand between it .. behind it.*
T: *Yes everybody should know there is a mighty hand over their lives*

The connotation of the lexical item *'mighty'* is one that seems to be preferred by the teacher as the appropriate word in discussing the religious content. As the pupil is not required to incorporate the new lexis in a follow-up answer, the teacher is presumably providing alternative lexis and syntax in input to learners.

P: *People think that there is afterlife*
T: *People believed that there is afterlife OK (providing morphosyntactical and lexical modification)*
P: *(pupil not required to repair)*

The original pupil utterance is lexically accurate, but the question required the use of the past tense. In the modification the teacher provides the correct verb tense and the alternative verb *'believe'*, which again could be more appropriate in the context of a Religious Education class. The pupil is not required to incorporate the modifications in subsequent production. Typical of this teacher's discourse style is a tendency to modify and add to the pupils' utterances without requiring them to reiterate or improve those utterances. In the following example from a Biology lesson the pupil provides the word '*rule*' in the answer. The teacher seems to accept it but adds the more appropriate *'control'*.

T: *The brain is for…* ? (prompt)
P1: *Thinking*
T: *Thinking. I hope so. And controlling your body. Yes?*
P2: *Rule the body.*
T: *To rule the body. OK. To control is also OK.*

This pedagogical option was the most frequently used in the group of CLIL teachers and the table below enables us to ascertain whether lessons in one bilingual school provide more modifications in teachers' discourse than another.

Table 8.13

Number of modifications to learners' answers in the lessons in the four bilingual schools

	School 1	School 2	School 3	School 4
Modifications and additions	22	19	28	46
Average per lesson	0.9	1.4	2.8	2

In comparing the number of options revealed in the four bilingual schools we can see that school 4 records the highest number of modifications and additions to pupils' answers, with a total of 46. School 3, with fewer recorded lessons, has a higher average of 2.8 occurrences per lesson.

Analysis of the discourse in the support teachers' classes shows that 79% of lessons featured this option during interactional talk, which is a higher percentage than in the other two groups of teachers. Further analysis shows the linguistic aspects which are followed by modifications in this context, with most modifications being made to utterances related to lexis and morphosyntax and a few related to comprehension of text.

Some teachers in the support classes take the opportunity to enhance and broaden learners' knowledge of lexis by indicating that a given answer is acceptable and then introducing an alternative lexical item that could be substituted for the one used by the learner. In the two examples below taken from a year 3 lesson, the class is discussing a recent trip to the UK.

P: *We saw some nice plays.*
T: *That's a bit of an understatement. Impressive is more the word.*

P: *You have to have some money to go to the university.*
T: *to be admitted, yes.*

P: *we went to William Shakespeare's house.*
T: *yes to his birthplace*

In the following example the teacher provides an alternative to the main verb in the learner's answer.

T: when do you chew gum?
P: *when I'm doing the newspapers.*
T: *OK. When you're delivering them you mean*
P: *Yes.*

The data on English support classes contain fewer examples of modification of morphosyntax than of lexical modifications. The following example provides an illustration of the teacher providing an expansion to the learner's answer. The teacher has asked a question checking learners' knowledge of verb tense formation.

P: *a verb plus ing*
T: *yes so we need a main verb plus an ing form.*

In the following example the teacher provides the appropriate prefix for the adjective, while at the same time changing the syntax of the original utterance.

P: *something you don't expect*
T: *yes, something unexpected.*

This strategy is employed in 45% of the mainstream lessons, fewer than in the English support classes, although the average use did not differ greatly from that of the support teachers. In the following example the modification is minimal with the introduction of the word '*booklet*' as a synonym to '*a little book'*. The teacher though keeps the adjective *'little'* in the response.

T: *Pull out. What is a .. what do I mean by pull out? the click pull out? Yes Alexander.*
P*: It's a little book that's in the magazine that you can pull out.*
T*: Yes. It's a little booklet in the magazine which you can pull out.*

In the following example the pupil's answer is syntactically and contextually accurate, and the teacher seems to want to add an idiom to the answer without expecting a revised

utterance. It is not possible to assess whether the idiomatic language was noticed and picked up by the pupil.

> P: *I'm not very nervous*
> T: *OK so you are calm, cool and collected..that's what we say.*

In the following example the answer is partially correct but the teacher provides the specific and appropriate lexis.

> P: *bread*
> T: *just bread? Slices of bread. *boterham (L1)* [here the teacher provides the L1 translation]

Modifications to pupils' answers occur in all three groups of teachers, with the CLIL teachers and the support teachers showing this to be their preferred option in CF. The percentage of CLIL teachers using this type of feedback was 52.2%, while 78.5% of support teachers used this type of feedback at least once during the lesson. The average numbers of the groups show that the CLIL lessons showed a slightly higher average use of this type of feedback. The mainstream lessons scored lower, with 45.4% of them showing elaborations, giving an average of 2.6 occurrences per class.

8.9 Prompts in CD

The difference between a recast and a prompt in CD in second language learning contexts has been described in several studies. Lyster and Izquierdo (2009) carried out a study on the use of prompts in a group of adult learners of French. In their study a distinction is made between a recast in feedback and a prompt. A recast, whether it is lexical, morphosyntactical or phonological, contains the reformulation of the learner's incorrect utterance, whereas a prompt is a *'signal'* (Lyster and Izquierdo 2009:455) to the learner that the utterance has not met the requirements of a target language model. In the list of prompts, Lyster and Izquierdo include clarification requests, metalinguistic clues and repetitions with rising intonation to indicate that a repair needs to take place in order for the utterance to be correct. This study makes a similar distinction between a recast and a prompt, but narrows the definition of a prompt to aspects of feedback and elicitative acts. These acts are given in the form of either a phonological prompt or a provision of the first part of a correct utterance. Clarification requests and metalinguistic comments in corrective feedback are assigned by those researchers to other categories of CF. A recast is made in response to an incorrect answer, and many of the prompts in the study were used to stimulate or encourage a pupil answer.

As can be seen in table 8.14, the use of prompts was observed in all three contexts, with the highest percentage in the group of English support teachers and the lowest percentage in the mainstream English teachers.

Table 8.14

Use of prompts in the 3 contexts

	N	%	av
CLIL	50	33	2.27
Support	16	43	2.7
Mainstream	5	18	2.5

n = number of occurrences
% = percentage of lessons showing the use of the strategy
av = average number of occurrences recorded in lessons during which the use of this strategy was identified

In the CLIL classes the use of prompts both as feedback and elicitative acts was observed in 33% of the lessons, with highest numbers in a year 1 Biology class and a third-year Maths class. The teacher in the Biology class was given a high holistic score of 3 and a language level of B2. It was a data-rich class with a high level of interaction between teacher and learners. Pupils were active in initiating exchanges with questions on meaning of L2 expressions and lexis. The teacher prompts used most often were partial sentence prompts to elicit answers on content, not always in an immediate response to a pupil's answer but also as prompts to check knowledge of the content.

At times, the prompts result in a correct answer or a partially correct answer.

T: *the gullet?*
P: *bring food into the* stomach* (mispronounces stomach)
T: *yes to bring your food to the stomach*

T: *The eyes are for…?*
P: *Looking*
T: *to see .. seeing .. or to see .. you can also say for sight.*

Other examples in this lesson are not always successful in eliciting the required answers.

T: *Your lungs are for……(*rising intonation indicating an expectation that the pupil will supply the correct answer)
P: (answer in L1) **Ik heb hiermee haal je adem*
T: *excuse me.. in English*
P*: I have * hiermee haal je adem*
T: Yes. And how would you say that in English?
P: *Erm*
T: *To ..? Lungs are to …. ?*
P: *I don't know*
T: *Try it yourself*
P: (no response)

In a Maths lesson the teacher was given a holistic score of 2 and a B2 level of English proficiency and the following excerpt is an example of interactional dialogue from this class.

Example 1
T: *An ABC formula or….* (teacher waits for the pupil to complete the sentence)
P: (no response)
T: (completes the answer) *another formula*

In other classes additional information was added to prompts as an elicitative act in order to assist the pupil in providing an answer.

Example 2
T: the *northern …. (*rising intonation and waits for the answer) *… It's in your book.*
T*: The northern…. .. and then we used this word a couple of minutes ago.*

Most of the prompts given by the CLIL teachers dealt with content comprehension and therefore seem to be checking subject concepts and L2 lexis specific to the subject. The study did not quantify the exact number of prompts dealing with knowledge of concept or knowledge of L2 lexis. It seems that example 1 (above) is an example of checking concepts whereas example 2 (above) is a check of L2 knowledge of subject specific lexis.

The use of prompts was marginally higher in the English support classes than in the other two contexts, with nearly half of the support lessons recording instances of teacher prompts. Some were used in the same manner as in the CLIL classes, namely as an elicitative act with the initial part of the sentence given by the teacher in anticipation that the pupil would complete the utterance.

In addition, phonological prompts were recorded with the teacher providing the initial sound of the required answer as a stimulus to retrieval of the correct lexis.

T: *It means complete n……[*waits for pupil to provide the answer]

Within the group of eleven mainstream teachers only two teachers used this strategy in eliciting output, and even in these two classes the use was minimal. In the lesson where a teacher used this strategy four times, all of the prompts were in the form of unfinished sentences with an expectation that the pupil would finish the sentence. This was not always successful. The teacher was a native speaker who was given a holistic score of 3.

P: *They always get the belt for the dog ..*
T: *They always ..*
P: *Er no ..do you call it a..?*
T: *You don't call it a belt. What do you call it ?*
P: *A dog ..something with a dog*
T: *Yeah Can anyone think of the belt. It's not really a belt. What is it? It's a* ….(prompts)
P: **Riem* [L1 answer]
T: *Yes * a riem what do you call it in English do you know? [no answer] We call it a lead a dog lead.*
P: *Well they always waved it at him.*

8.10 Corrective feedback options from the three contexts

The data on corrective feedback collected from the three instructional contexts shows the total number of instances of CF within the nine different types of feedback moves. The percentage of lessons in each group using this type of feedback is shown below in table 8.15.

Table 8.15

Types of corrective strategies used by teachers in the three contexts, and number of lessons with occurrences of the strategies

Feedback type	n	% of CLIL lessons with this strategy	% of support lessons with this strategy	% of mainstream lessons with this strategy
Modelling	24	10	29	36
Recasts	114	40	43	64
Metalinguistic comment in L1	93	1	7	91
Metalinguistic comment in L2	149	15	71	73
Clarification requests and comprehension checks	74	31	50	45
Eliciting from others	37	19	43	36
Summary of the pupil's answer	27	18	21	0
Modification of and addition to an answer	158	52	79	45
Prompts	71	33	43	18

n = number of corrective feedback moves in all three contexts

Comparison of the frequency of the indicators on CF in the CLIL context in the 4 schools is compared reveals that school 3 shows the highest average of corrective feedback options in the lessons, with an average of 6.9 per lesson. School 1 has the lowest average number for the use of corrective feedback options. School 3 reveals the highest average with a 6.9 average per lesson. This is similar to School 4, which recorded an average of 5.9 per lesson.

Table 8.16

Corrective feedback options in the four bilingual schools

Bilingual School	Total no. of options observed	Average no. of options used per lesson
1	72	3
2	68	5.2
3	69	6.9
4	130	5.9
Total	339	

The feedback technique most frequently used by the CLIL teachers was modifying and elaborating the pupils' answers. This type of feedback differs from a recast in that generally the pupils' answers are accepted as being valid, with teachers tending to offer no comment on the accuracy or inaccuracy of the answers.

Table 8.17

Corrective feedback options by CLIL teachers

Feedback type	% of CLIL lessons with occurrences of the strategy
Modification of and addition to an answer	52
Recasts	40
Prompts	33
Clarification requests and comprehension checks	31
Eliciting answer from others	19
Summary of pupil's answer	18
Metalinguistic comment in L2	15
Modelling	10
Metalinguistic comment in L1	1

Analysis of the types of recasts observed in the CLIL lessons shows that the majority of them deal with lexical items relevant to content-specific lesson material. Attention is not paid to linguistic aspects of morphosyntax and phonology to the same degree. This partial neglect could be due to the subject teachers' attitude to spending class time on language issues or to their lack of knowledge of how to reinforce language aspects during subject lessons. The use of recasts in CLIL classes is second on the list of preferred options, and these instances are mostly found in the Geography classes in all four schools.

The corrective feedback technique least used by the CLIL teachers is predictably that of giving metalinguistic in L1, although giving metalinguistic comment in L2 is used by 10 of the sample teachers with a total of 15 occurrences recorded. This is not a surprising result and is consistent with the data from the teachers' answers on the questionnaire,

which indicate that they see their role in the classroom as first and foremost subject teachers.

Table 8.18 breaks down the feedback options observed in the English support classes with a percentage of how many lessons reveal the use of the strategies.

Table 8.18

Corrective feedback option by English support teachers

Feedback type	% of support lessons with occurrences of this strategy
Modification of and addition to an answer	79
Metalinguistic comment in L2	71
Clarification requests and comprehension checks	50
Recasts	43
Prompts	43
Eliciting answer from others	43
Modelling	29
Summary of the pupil's answer	21
Metalinguistic comment in L1	7

In the group of teachers in the English support classes the indicator recording the highest percentage of teacher use was also the modification of pupils' answers. If we look though at the indicator which recorded the highest number of occurrences of feedback options in all the support teachers, the one which scored the highest was indicator 15, giving metalinguistic feedback in L2. English support teachers do not often query answers nor do they repeat the utterance with a rising intonation to draw pupils' attention to an incorrect answer. The mainstream English teachers' discourse reveals a similar pattern of minimal use of these two options.

Table 8.19 shows the feedback options used by the mainstream English teachers with the percentage of lessons revealing the use of the strategies.

Table 8.19

Corrective feedback options by mainstream English teachers

Feedback type	% of mainstream lessons with occurrences of the strategy
Metalinguistic comment in L1	91
Metalinguistic comment in L2	73
Recasts	64
Clarification requests and comprehension checks	45
Modification of and addition to an answer	45
Eliciting answer from others	36
Modelling	36
Prompts	18
Summary of pupil's answer	0

The most frequently used technique found in English mainstream classes was metalinguistic comment given in L1 on pupils' utterances, with the next most frequently occurring feedback technique metalinguistic comment in L2.

8.11 Summary

The data and results on strategies in the three contexts reveal a difference in the options of corrective feedback. For the CLIL teachers and the English support classes, the modification and elaboration of learners' output occurs the most frequently, with the support teachers having a higher percentage of use of this type of corrective feedback. The mainstream English teachers' use metalinguistic feedback in the L1 the most, with the same feedback type in L2 being their second most frequently used option.

Chapter 9 Discussions on the findings of classroom discourse

9.1 Introduction

This chapter considers the findings presented in the previous four chapters on aspects of teachers' discourse relevant to the five areas of classroom discourse investigated. The first section presents possible explanations for the actions of teachers when code switching in procedural language and during longer stretches of discourse in presenting content. The second section discusses code switching actions in interactional dialogue with pupils and the third section presents a discussion on the modifications teachers make to their own discourse in making input comprehensible to learners. The fourth part considers how question forms operate during elicitation of learner output. The chapter concludes with a discussion on the preferred didactical strategies in corrective feedback, with comments on the respective patterns revealed in the teachers' classroom discourse.

9.2 Code switching during procedural language and presentation of content

In second and foreign language teaching contexts the effective use of the L1 and the L2 in input is a discussion reflected in various methodologies and approaches, with some, such as the Direct Method, advocating sole use of L2 during instruction. Communicative Language Teaching is another approach that argues for a high level of the use of L2 in classroom discourse with an emphasis on the application of language in meaningful and naturalistic context (Sauvignon, 2002). The communicatively meaningful context of CLIL programmes certainly falls into this context of meaning-based learning, where the teaching of the content subject matter is the instructional objective. In the immersion and CLIL concept of content teaching the L2 is considered a source of effective language input for learners: this is achieved by demonstrating models of lexical use and morphosyntax through the teaching of content. L2 is advocated as the medium for presenting the content, in accordance with the notion of exposure to authentic language as a prime factor in language acquisition. This, together with comprehensible input, should provide an optimal linguistic environment for learners' progress in SLA.

A common denominator in the methodologies applicable to all three contexts investigated in this study is the use of the target language in spoken and written discourse. In the bilingual context it is a basic tenet of CLIL methodology in presenting the concept of the combination of content and language. For contexts in which English is taught as a foreign or second language, such as the support and mainstream contexts, teachers are familiar with approaches advocating communicative language teaching, meaning-based instruction and task-based learning, which are reflected in much of the course book material used in secondary schools. I would maintain though that the mainstream foreign language context differs from the CLIL context, not only in the classroom practice but also in other principles guiding the teaching approach. The foreign language programmes include a more overt form-focused approach, with an assumed objective of metalinguistic knowledge of grammar in the L2. This fundamental difference in principles is most likely to result in a different teaching approach in foreign and second language classes and is correspondingly reflected in the findings. The mainstream classes in the study record a higher rate of code switching than those in the other two contexts, particularly in the

sections of discourse with an overt focus on grammatical terminology. The objectives of the programme seem to be a factor influencing code switching in mainstream classes.

CLIL classes

One possible factor in code switching in CLIL programmes is a general consensus in some Dutch schools that the L1 and the L2 be used side by side for the first few months of the bilingual programme, in order to assist pupil adjustment to the use of the L2. This local practice had to be considered during analysis of the data. The study revealed several occurrences in which teachers overtly refer to this condition for classroom use, as illustrated by the example below of a teacher's comment in L2.

> T: *Up until Christmas it's not a problem if you use some Dutch words. After Christmas it's all English.*

Nevertheless, the CLIL teachers expressed an overriding awareness that although the policy of dual code use was acceptable, it was their task and responsibility to encourage pupils' use of the L2. In the following example the teacher reminds the pupil that she should attempt to use the L2 in her comments and questions.

> P: **Dus als je zegt dat..*[translation: so if you say that..]
> T*: Try in English.*
> P*: Oh yes..sorry..So if you move your muscles..*(pupil continues in L2)

Consistent use of the L2 as the language of instruction lies at the core of any CLIL programme, and this study revealed many occasions when teachers explicitly instructed pupils to use only the L2 in their discourse. The explicit principle of L2 use in these CLIL contexts was certainly reflected in the data and identified by teachers as a known requirement for how the lessons should be conducted and what the preferred code should be for the classroom discourse of all participants. When teachers were asked in the questionnaire whether they thought that teachers in bilingual classes should speak English to pupils outside the class, the averaged response showed a moderately low 2.16 score, indicating that the use of the L2 outside the classroom situation was not considered to be entirely necessary or appropriate.

The agreement on the consistent use of the L2 in CLIL classes is not always reflected in classroom practice. Where it does not occur, this may be attributable to other contextual factors. Low ratings for L2 use in procedural language assigned to two Physical Education classes may have been due to the subject matter, which could be regarded as less cognitively loaded linguistically. This may have led to a more lenient approach to the use of the L2 by some of the teachers.

While procedural language could be considered peripheral to the main part of the lesson, and within the data makes up a small part of teacher language input, its use in CLIL classrooms is nevertheless a notable aspect of the total language environment that pupils are exposed to, as it provides an element of the naturally occurring 'real' language and as such is genuinely communicative. It can be treated as an opportunity for interaction with learners through authentic use of the L2, firstly in a pragmatic context and secondly as practice of less content-loaded language. Such an occasion provides learners with a less cognitively challenging situation involving the use of higher frequency lexis in functional

interaction. The following example is of a teacher making a code switch with a post-utterance translation after encouraging a pupil to use English.

T: *Don't be so modest.. ..*niet zo bescheiden zijn.*

Other examples of the pragmatic nature of classroom discourse in the data show occurrences of the use of L1 in clarifying task instructions and procedures. The following examples show the teacher switching codes to ensure that the pupil has the tools needed to complete a task. In the first example this switch is quick and effective in mediating comprehension, but could be seen as a missed opportunity for reinforcement of the lexical item *'ruler'*, which may or may not be part of the learner's automatic language use. In both examples it seems though that this lexical item is not part of the pupil's immediate linguistic resources. The pupil's response may indicate a lack of lexical knowledge or there may have been another reason for the lack of response to the teacher's language.

Example 1
T: *do you have a ruler?*
P: *uh?*
T: *yes.. please take a ruler.*.een lineaal.. a ruler..yeah.. please take it..*

Example 2
T; *Where are your books?*
P: *uh…?*
T: *your books.*.je boeken*

The teachers' responses in both these examples certainly indicate that priority was given to ensuring that the instruction be understood and carried out immediately, hence the switch to L1 with no attempt to assist pupil comprehension by elaborating on the utterance. The teacher's switch to L1 provided a quick solution to the pupil's lack of comprehension.

There are two possible explanations for teachers' use of both codes during classroom routines and procedural language in CLIL classes. On the one hand it could be that classroom routines, as indicated by the very definition of the word 'routine', tend to follow an expected and fixed pattern of language with low cognitive demand on the learner. As such the discourse is less demanding on pupils, and therefore their comprehension of the message could be perceived by the teacher as more likely. Hence the teacher may feel less need to be concerned with focusing on meaning. This could lead to the use of L2 in procedural interaction with little concern about checking comprehension of instructions, as the meaning should be either self-evident from the teacher's instructions or so familiar that it is not viewed as a linguistic area of concern. Conversely, the very fact that the procedural language can be seen as not directly contributing to the language input for learners, as it is not relevant to subject content learning, may cause the teacher to see the use of L2 in giving instructions as not necessary. Therefore, it can be argued, instructions can be given in L1 without losing perceived valuable opportunities for linguistic input in the L2. The pragmatic use of L1 may be a factor in its use, as it may be perceived as less relevant than the 'real business' of the lesson.

In assessing whether differences in L2 use in this area are dependent on the subject of the lessons, the data show that some Physical Education classes are the area where the average use of L2 is the lowest in procedural language. This more relaxed attitude on the part of both teachers and pupils could be due to a perceived notion of a subject demanding less content-specific jargon and to the task-type nature of game playing or gymnastic activities, although one PE teacher did overtly make it a requirement that pupils use L2 while performing the activities. In general all other subject areas yield a high level of L2 use by teachers in presenting content, with the exception of a year 1 Biology class where the teacher has a low rating of 1 for L2 use which, in this specific case, could have resulted from the teacher's adherence to the school policy of allowing the use of the two codes in classroom discourse during the first few months of the programme.

Teachers' choice of code is not dependent on the year level and the pupils' age. There is no observable pattern showing that 1st year classes receive more input in L1 than year 3 classes. One might assume that the classes with the younger pupils would have a higher level of L1 use as a result of the policy that the use of both codes is accepted during the first few months. This may indeed have been a factor in the above-mentioned Biology class with a low rating for L2 use, but in two year 3 History classes we also find a lower rating of 2. The use of the two codes seems to be more idiosyncratic and teacher-dependent than systematic for presentation of content in longer stretches of teacher discourse. The teachers' and pupils' expectation seems to be that the code of the classroom is L2, and this is reflected by the data showing a high level of L2 use. Code switching from L2 to L1 occurs regularly in areas of pragmatic function and in aspects relating to comprehension of instructions and of procedures for performing and marking classroom tests, though not in all the CLIL classes.

English support classes

The higher use of L2 in the English support classes could be attributable to two factors. Firstly, as the majority of the English support teachers in this study are native speakers of English their discourse has a naturalness that may lead to pupils' acceptance that the L2 is to be the language of the teachers' discourse, although there was no discernible difference between the pupils' attitude to the native speakers (NS) and their attitude to the non-native speaker (NNS) teachers. One of the NNS teachers reminded pupils several times during the lesson of the fact that only English was to be spoken by all participants in the class, but then received a comment from a pupil that the teacher himself had used the L1 in a stretch of discourse with another staff member. This seems to indicate that although the natural code for discourse between the teacher and the pupils outside the class might be L1, for the purposes of the lesson both parties accepted the use of the L2 in the lesson.

The second factor that may lead to such a high level of English in the procedural language and presentation of content in the English support classes is the teachers' own professional background and training, which would have included aspects of linguistics and second language development and the didactics of foreign language education. Their level of awareness of effective didactical strategies leading to comprehensible input can be assumed to be greater than that of other subject teachers in the CLIL programme whose training may not have included these aspects. This awareness is demonstrated by observations recorded under other indicators on the Observation Protocol, such as modification of input. Modifications include expansions and reformulations of syntax and

rephrasing questions to pupils in order to assist comprehension. The English support teachers show a high level of modification of their input. The concepts of effective classroom English and negotiated meaningful communication may be ones that the trained teachers of English can more readily accept as being totally appropriate to the CLIL context and therefore feel that they can implement with success. The support teachers' consistent use of the target language in procedural language and in presentation of content in English support classes is extremely high and accordant with the principles of didactical strategies conducive to second language acquisition.

Mainstream classes

In the mainstream classes there seems to be no discernible pattern to the teachers' choice of code for the classroom management aspects of these lessons. Code choice can therefore be assumed to be based on the teachers' random spur-of-the-moment decisions. These decisions may depend on the level of interaction while pupils are engaged with the task and the number of opportunities provided by the teacher for pupils' output. This seems to be corroborated by the findings of this section of the study, where teachers with a higher holistic score generated more output and at the same time use both codes more frequently in procedural language, with a higher amount of code switching. So the use of code in procedural language does not correlate with the holistic score. One year 3 class was highly interactive with a high level of input from the pupils, with the teacher given a holistic score of 3 and a C2 level of language proficiency. However, in the same class the rating for code use in presenting content was a low 2 with long stretches of the CD in L1 when presenting new content material. This can be explained by the finding that mainstream teachers often switch to L1 when presenting and practising grammatical items. Individual switches in procedural language in mainstream classes appear to be dynamic and unstable, not systematic. This randomness of code choice, however, is not observed in the teachers' code use in presenting the content of morphosyntactical and lexical items, as the use of the two codes then appears to be more consistent and stable with a more frequent use of L1 in explanations.

Code use in the mainstream English classes is less systematic than in the other contexts and seems to relate to the type of instruction and to teachers' mode of managing the lesson. In the sample lessons instances of code use vary widely in the context in which they occur. I would maintain that this is due to the pedagogic and didactical aspects of foreign language teaching being more disparate and diverse than in the CLIL teaching context, and more susceptible to a wider range of local conditions; the use of L2 is interpreted and applied in various ways by different mainstream teachers. A policy on code use in foreign language classrooms does not seem to be as clearly defined as in the CLIL methodology, which is based on the explicit rationale of exposure to authentic and meaningful discourse in a content-related context. A comparable policy and approach for L2 use in mainstream classes seems to be based on a general notion of classroom English as desirable, but one not universally applied. A difference between mainstream teachers' use of L1 in procedural language and L1 in meaning-focused language is clear from the data for this study, with a higher level of L1 use in explanations of grammar and lexis in the mainstream classes. This may reflect current practice in Modern Foreign Language teaching which, although it has incorporated CLT into syllabi and course books, often maintains the use of L1 in presentation of material, particularly in explanations of grammatical items in class material. The pattern of code use revealed in this study could be described as predictable and expected, and seems representative of common practice in foreign language teaching in Dutch secondary school classes. This statement is based

on observations of the lesson samples in this study, but the practice may also be a phenomenon that is widespread in English language teaching in general.

9.3 Code switching during interactional dialogue

CLIL classes

Most CLIL teachers showed a high level of L2 use during interactional classroom discourse. When the occurrences of code switching in CLIL classes during presentation of content are compared with the instances of code switching in interactional dialogic talk, we find a slight increase in the amount of code switching in interactional talk, with more L1 appearing in the teachers' classroom talk. A higher level of code switching in the CLIL classes did not seem to necessarily lead to correspondingly poorer language input for the learners or a lower level of interactional talk. One lesson with a high level of code switching by a teacher with a high holistic score contained many instances of learner-initiated talk, demonstrating the learners' high level of engagement in participatory dialogue. The use of L1 seems to be an option taken by some CLIL teachers to ensure that the message has been understood. At times teachers seem insecure about either their own competence in explaining content or procedures or the pupils' level of comprehension.

Code switches and the use of L1 occurred in translations of content terminology and in explanations of content concepts. But teachers' code switching is not always a reactive strategy for responding to a pupil's miscomprehension. At times the code switch to L1 is a proactive action and the data reveals that teachers overtly tag a switch with a justification that some content concepts are particularly important and therefore require explanation or a comprehension check in the L1. The CLIL teachers seemingly anticipate miscomprehension by the learners, particularly when explanations of content concepts are given.

An area of classroom discourse in CLIL classes recording a high number of code switches is that of procedural language giving instructions for task completion and for test assignments. Code switches often occur when teachers appear to give priority to comprehension of the message as opposed to comprehension of the medium. For both the teacher and the pupils a code switch to L1 provides a speedy and convenient method of ensuring comprehension. CLIL teachers often respond to an L1 enquiry with an L1 response and both interlocutors seem to accept the choice of a switch as preferable to an extended exchange in L2.

Whether teachers' anticipation of miscomprehension is warranted cannot be established, but it appears that the CLIL teachers are using code switching as insurance that the content material will be understood. At other times the code switching is pupil-initiated, expressing insecurity about the meaning of lexical items or of more complex passages of text.

An additional finding in the use of L1 and L2 in procedural language revealed examples of CLIL teachers' code switching in verifying comprehension of content, which serves as a form of parallel discourse performed by the teacher. This leads to translations of phrases and words as they arise during presentation and with no indication of learner miscomprehension. These instances are not accompanied by checks on comprehension or

explanations of lexis but form part of the teaching style of some of the teachers. It seems as though some teachers are assessing, as they speak, possible pitfalls that learners may encounter and are providing a bridging device in order to assist comprehension by code switching.

In some CLIL classes where the teacher takes an inconsistent approach to the use of L1 and L2 code in interactional dialogue, there appears to be some insecurity on the part of the pupils as to what is expected of them in their own utterances. The example below is from a Geography class where the teacher starts in Dutch, seems to expect an answer in English and then allows the learner to give an answer using the L1. This results in a mixed message for the pupil, who is unsure about what code is expected and seems to be ill-equipped to answer in L2. When the pupil is given permission to use Dutch in the answer, there is no follow-up in the L2 to support learning. In this instance the teacher's random and haphazard approach to the use of the two codes shows an inconsistency that may not be beneficial to language development.

> T*:* je hebt 2 soorten kaarten over Europa gehad .Welke waren dat alweer*? [translation; You have had 2 kinds of maps about Europe. What were they again?]
> P: *(raises hand)*
> T: *yes?*
> P: *mmm..*(indicating insecurity about answering*)*
> T: *You may say it in Dutch if you don't know it in English.*
> P: *(*answers in Dutch)
> T: *Yes.. so this is a natural one.*

The consistent and high use of L2 is a principle of effective instruction in CLIL and foreign language teaching, and the results in this study show that the majority of CLIL lessons have a high level of L2, with some code switching in interactional dialogue. The code switches occur in teacher input in providing both pre-emptive and reactive translations of discrete lexis relevant to content and in checks of comprehension of content. The code switch seems to be the preferred strategy at that moment during the interaction, with a tag to indicate the reason for the switch.

Lessons with a low score for L2 use and frequent occurrences of code switching do not automatically feature less interactional dialogic discourse. Several of the lessons show this aspect and it could be that accommodating learners by the use of L1, especially in year 1 classes, may lead to less apprehension on their part, allowing them to contribute successfully to the classroom discourse and to show more initiation. It is not clear whether the switches by teachers are part of their conscious behaviour or are intuitive actions, as no post-lesson interviews were conducted to ascertain this.

English support classes

The fourteen English support classes in this study show a consistent and extremely low level of code switching to L1 in dialogic interaction with pupils. The very occasional occurrences are found in one third-year class. The teacher's code switching does not appear to be part of his usual repertoire in classroom discourse. In exchanges when pupils respond in L1, his usual mode of behaviour, in this and other lessons, is to elicit the answer in L2 from another pupil. In the following example, the teacher is presenting the

concept of a compound noun and an adjective, and elicits from the pupils the definition of an adjective.

> T: *what is an adjective again? Do you remember? What does an adjective do? What does it give information about?*
> P1: *it tells us something about a.. a.. * zelfstandignaamwoord* [translation: a noun]
> T: *about a *zelfstandignaamwoord…what is a *zelfstandignaamwoord?* [translation: a noun*]*
> P2: *a noun*
> T: *yes a noun very good so a noun*

In the following example the teacher adds a translation in L2.

> T: *compound just means that it is two words and they are linked together by a hyphen.. a dash .. * een streepje tusssen* [translation: a dash in between]

The results show that in interactional dialogue English support teachers generally have a high level of L2 use and a low level of code switching. The occasional switches are made for the purpose of dealing with morphosyntactical aspects. The low level of code switching found in these English support classes may be due to the fact that this group of teachers includes a high number of native speakers for whom it is more natural to use the L2, which may therefore be more accepted by the learners as the norm. The low level of code switching might also be related to the high level of target language use advocated in most pedagogies of foreign and second language learning. It may be that this approach is being put into practice by the support teachers in this study and leads their employing alternative strategies for producing comprehensible input. The results of teachers' strategies in presenting input are detailed in the next section, where comparisons are made as to how teachers in the three contexts modify and elaborate on their own discourse.

Mainstream classes

The analysis of code switching in mainstream English classes revealed a somewhat different picture to the English support classes, showing more varied results in the use of L2 in interactional talk. This pattern is reflected in the use of both codes in interactional language with learners, and all the English mainstream classes had some use of L1 during interactional talk. One aspect that seems to be common to most of the mainstream English classes in the study is the use of L1 in interactional dialogue for checking morphosyntactical aspects of language, in particular the use of tenses in English and the formation of verbs. This type of interaction was found in both year 1 and year 3 classes in the study. Mainstream English teachers use more code switches in interactional talk and seem to be more deliberate in their use of code in interactional discourse. This is particularly noticeable when they give explanations on language form and deal with aspects of morphosyntax. They sometimes overtly tag code switches to indicate to learners the reason for changing from the L2 to the L1 in order to ensure pupils' comprehension of grammatical terminology and the rules of use.

At times, the low level of L2 observed is attributable to the low level of discourse in general. Some highly interactive classes with teachers assigned a high holistic score show a high level of code switching, whereas classes which are less interactive involve fewer

code switches. So while some classes show a higher percentage of L2 use, the volume of L2 input provided to the pupils is lower in the mainstream classes than those in the other two instructional contexts.

9.4 Modifications to teachers' discourse

CLIL classes

Modifications to discourse include adjustments to an utterance based on perceived miscommunication, and expansions on input with added synonymous language. The data for modifications in the teachers' discourse in CLIL classrooms reveals a low level of use of this didactical strategy. The rather neglected status of this form of teacher input may be due to CLIL teachers' perceptions of their role and responsibility with regard to teaching and checking language skills. Their primary focus is on content and the related lexis and concepts. The lack of modifications could also result from the presence of the school's English support stream, whose perceived responsibility is to improve learners' performance in the linguistic aspects of the curriculum. An additional reason for the relatively low level of language modification and reformulation in morphosyntactical areas is that CLIL teachers may be less aware of the likely pitfalls in comprehension that can arise from the use of more complex syntactical structures in presentation of content. The data shows that CLIL teachers devote more time to subject-specific lexis as an area requiring more overt focus and attention than to syntax. This is perhaps an understandable approach, since subject-specific lexis carries the information relating to the content, and the knowledge of subject in any mainstream class will consist frequently of facts, with the accompanying specific vocabulary to narrate these facts. This is an area that forms the objective of the subject lesson, and for teachers it is their focus when teaching mainstream subject classes in L1. If this notion is correct, then it may be that the teaching style and characteristics of content teaching in an L1 context are brought unmodified to the CLIL class, with a direct transference of teacher behaviour from a regular non-CLIL context to a CLIL context, possibly resulting in omission of or lack of attention to a focus on morphosyntactical aspects.

English support classes

The English support teachers in this study revealed the highest use of overt modifications in morphosyntactical and lexical items, with 78% of the lessons showing the use of this strategy. One hypothesis that could explain this is that the teachers are straddling both CLIL and EFL, and as part of their tool kit for these educational environments they bring not only their knowledge of linguistic structures but also an awareness of how to effectively mediate input. This, coupled with the additional awareness that pupils in CLIL classes need to be exposed to a more authentic L2 environment, will lead to higher expectations relating to pupil performance. These factors will allow teachers to produce more authentic language, albeit that this requires them to engage in more linguistic intervention in negotiation of meaning

Mainstream English classes

The data on the mainstream classes revealed a low frequency use of teachers' overt modifications to their own discourse, with 45% of the lessons showing this type of

strategy. One hypothesis to explain why this study revealed few modifications and reformulations is that the teachers may already be modifying input as a considered and integral part of their teaching style and with a high degree of awareness of the level of learners' comprehension. If this notion is correct, this adjustment will already have taken place and potential sources of miscomprehension will already have been filtered out because they do not meet the pupils' level. As a result, reformulations and modifications are less frequent in these mainstream English language classes. This is not to say that they are not observed in these classes at all, but that they occur less frequently than in the English support classes. The hypothesis was not tested as no post-lesson interviews were carried out, but it seems highly probable that mainstream teachers have a clear understanding and awareness of the learners' level of comprehension and of their level of language proficiency in output.

9.5 Use of question forms in eliciting output

Recommendations in the literature on effective questioning techniques in language learning contexts include the more frequent use of more open and divergent questions (Dalton-Puffer 2007, Echevarria and Graves 1998, Boyd and Maloof 2000) to give opportunities to translate linguistic knowledge into language competence. Through posing these types of questions, teachers can challenge pupils to push themselves to produce more complex and richer answers. A failure to use these types of question in interaction discourse with pupils could be considered a wasted opportunity to elicit extended and elaborated answers from learners. If the concept of pushed output is relevant to language acquisition, then it is incumbent upon the teacher to take advantage of opportunities to provide an appropriate context for this to occur.

The data on the use of questions in CD reveals a correlation between the use of convergent and divergent questions and the use of procedural questions. Teachers who show a high use of both convergent and divergent questions also have a high use of procedural questions. In addition, analysis shows that the frequent use of convergent and procedural questions correlates positively to the teachers' language proficiency. The holistic score takes into account the use of divergent questions, so teachers who score high on the holistic cline employ more divergent questions than teachers with a low holistic score. The language proficiency score though is not always a factor in a teacher's high use of divergent questions, with no direct correlation between the frequency of divergent questions and a high language proficiency rating assigned to the teacher, on the basis of the observed language use.

The data reveals some limited attempts by teachers of all three groups to extend this by an additional turn in the IRF sequences of questions, with varying degrees of success. These extended exchanges featuring questions demanding higher thinking skills are not found extensively in the data, and the typical IRF pattern in epistemic instruction is the default mode. It seems that many of the teacher questions which could potentially stimulate language production in learners are cut off early in the interactive sequences and that this is attributable to the teachers' own response to the initial answer from the pupil.

CLIL classes

In the recording of the use of question forms during the CD, occurrences of the use of questions other than those in epistemic talk were also noted. These were questions posed in procedural phases, and rhetorical questions occurring in presentation of content. Procedural language refers to two main areas: firstly, language used in classroom management issues of organization and discipline, and secondly, teacher-pupil chit-chat with no direct relevance to the subject content of the lesson. In both these areas talk can be valuable as input for pupils, as it provides models of language and opportunities to engage in meaningful and communicative interaction.

The difference in the use of procedural questions in L2 found in the data may be due to the teachers' perceptions on the usefulness of conducting this type of interaction in that code. The value of procedural talk can be perceived differently by teachers; some may see the subject content as containing the salient learning points, with the result that they regard the phatic and social language as less important and therefore consider that it can be carried out in the L1 without major disadvantage to learners. Others may see all classroom talk as having some value as input and consequently maintain the use of L2 in all aspects of classroom discourse. Teachers observed in the study seem to use rhetorical questions as a 'thinking aloud' strategy to maintain the flow of the teacher talk. Questions of this type may also function as tags or prompts for subsequent questions or as utterances prefacing further explanations of content.

English support classes

The support teachers seem to follow the general pattern of using more convergent questions than divergent ones. Where the number of convergent questions is low, then it seems to be dependent on the task type set by the teacher. The majority of the convergent questions in the support classes cover the comprehension of lexis with many of the questions acting as translation devices for an answer either in the L1 or L2. The '*What does x mean*?' type of question is prevalent in many of the lessons and results in answers in both codes, with at times no explicit request for a synonym in the L2. It seems as if the lack of explicit instruction on what code is required by the learner leads to the varied types of answers that pupils give. The number of divergent questions observed in the support classes is lower than the number of convergent questions, but with more examples found than in the data on their colleagues in the mainstream classes. Support teachers are providing pupils with opportunities to provide a more expansive answer, although the divergent questions do not always result in the pupils taking these opportunities nor do teachers always continue the dialogue in a way that might encourage this.

Mainstream English classes

The mainstream English teachers reveal the use of more convergent than divergent questions with a wide range in the number of occurrences found in each lesson. Some classes reveal no use of convergent questions and this seems to correlate with a low holistic score and the particular task type. So an individual written assignment set after a list of instructions by the teacher results in a low level in the use of question forms. The level of convergent question use does not appear to correlate to the language proficiency level as the data shows in table 7.9. The data does show that a high level of language

proficiency either NS or C2 level can result in a higher number of divergent questions than teachers with lower language proficiency scores.

9.6 Corrective feedback

The efficacy of giving corrective feedback in a second language learning context is an issue widely investigated in the literature on SLA (Ellis 2001, Lightbown and Spada 1990, Richards 1996) and the issue is not one that can be provided with a definitive answer on the effectiveness of certain types of feedback over others. Feedback can be explicit and with an overt correction on the form of the utterance with a request for pupil repair. It can be implicit with a recast to the learner with an expectation of a repair but not a request for one. Lightbown and Spada (1990) investigated feedback on form in young learners and found that reactive feedback given in a language context were the most effective in providing opportunities for language development. An additional finding by Spada (1997:83) on focus-on-form in CLIL environments showed that some overt language focus in feedback was of benefit to the learners' language development.

Feedback on learners' utterances provides a valuable model against which they can measure their own performance, leading to improved output. This study categorized strategies into nine areas of feedback which are considered to play a role in assisting learners' progress in language acquisition. The occurrences of strategies falling into the nine categories were observed and recorded. Comparisons were made regarding the preferred options for each group of teachers and the incidences of the options

CLIL classes

In the classroom discourse of CLIL teachers in this study the rather sparse observed use of some of the options for corrective feedback and the minimal use of overt corrective feedback to include learners' self-repair is a common feature of much classroom interaction in negotiation for meaning. This is confirmed by other studies, for example those of Swain (1995) and Musumeci (1996), the latter positing that pushed output is a neglected area in teachers' discourse and one that is underused and not exploited to its full potential. It seems that the data from this study tends to support this position.

The most frequently occurring corrective feedback options in both the English support teachers and the CLIL teachers is the modification and elaboration of pupils' answers. Both groups of teachers use this feedback option as opportunities to add lexis and to give more input on the content concepts. Seldom were the pupils required to incorporate this additional language in any form of pushed output, as they were rarely required to expand their answers. The use of this type of feedback acts a source of elaborated input without the provision of productive opportunities. This suggests a primary concern on the part of the CLIL teachers for pupils' comprehension of content material and not an overt focus on providing opportunities for learners to improve their productive linguistic output. None of the contexts showed a high use of clarification requests and comprehension checks, with a similar percentage of CLIL and mainstream classes featuring these.

Clarification requests are useful in giving opportunities for pushed output and form part of the repertoire of scaffolding techniques used in learning. A CLIL situation has the dual purpose of pushing learners to produce correct content and to consider the language in which they give their answer. A clarification request allows them to consider alternatives

to their original reply and to produce versions improved in both content and language. The clarification requests observed in the data do not always explicitly indicate which aspect of the learner's answer is being questioned. This aspect could be incorrect lexis or grammar use or, more often in the CLIL lessons, it could be incorrect content. Some clarification requests function as a signal to the learner that there is a mismatch between their answer and the response that would contain correct content and language. At other times it can act as an authentic request for clarification of an ambiguous and unclear answer that the teacher has genuinely misunderstood.

The generally low level of metalinguistic comment by CLIL teachers is consistent with the teachers' answers on the questionnaire, which reveal a general belief among the bilingual teachers in the study that their main priority and objectives are concerned with teaching the content concepts and not with focusing on language form or accuracy. The view expressed is that the responsibility for dealing with overt language meaning and rules of use lies with the English support teachers and not with the subject teachers.

English support classes

The feedback option used the most by teachers in the support classes is a modification on the pupil's answer. This strategy while providing an adjustment or addition to the answer and supplying more input, does not always automatically lead to the pupil reiterating and incorporating the modification into a new utterance. So while the teacher's new input is provided, it is not possible to measure whether it acts as intake for the learners. The option least used by the support teachers is metalinguistic comment in L1, which is not a surprising result given the data on code switching in these classes which is considered in chapter 5. When this option is discounted, then the option used the least by support teachers is a summary of the pupil's answer.

Mainstream English classes

In the mainstream classes the most frequently occurring option in giving corrective feedback is a metalinguistic comment, in both L1 and L2, on morphosyntactical aspects of language. This seems to be a result that fits with the didactics and possibly the teaching objectives of foreign language teachers in general. The main objective in these classes may be to teach language rules and use and with this goes the explanations and comments on how language rules operate

Even though there are generally fewer recasts in mainstream classes, learners in this group are more frequently required to self-repair in the specific case of morphosyntactical recasts than learners in the other two contexts. This could reflect the pedagogical objectives of mainstream language teaching, with teachers more concerned with overt demonstration of the use of discrete language items. This may be attributed to the associated focus on accuracy, causing teachers in the language classes to be more alert to morphosyntactical errors and more pro-active in correcting and assisting accurate production. In this respect the disparity between English mainstream and support English in this study is noticeable, and the low use of recasts in the support classes is similar to that in the CLIL classes.

Recasts are less frequent in the mainstream classes although they do result in pupil repair more often than in the other two contexts. Again, this is an unsurprising result and may be explained by the focus of language teachers on language form and language accuracy.

None of the mainstream teachers provided a summary of a pupil's answer, which may suggest that the learners' output in the mainstream classes falls into a restricted and limited range, with no additional language provided by the teacher that learners can incorporate into new utterances.

The examples of metalinguistic comment by mainstream teachers often feature a mix of both codes, with most comments given on morphosyntactical aspects of language. A frequent strategy found in the data is the use of the L1 in naming the grammatical terms for the structures being practised. This is common practice in the mainstream classes and is consistent with other observations made in an earlier section on code switching. The observations of linguistic behaviour in mainstream classes conform to the general picture of a focus on accuracy, a pattern that might be expected to be the norm in other similar contexts.

9.7 Comparison of the three instructional contexts

The corrective feedback strategies used by teachers in the three contexts reveal a varying pattern as shown in chapter 8 table 8.15. The data on corrective feedback collected from the three instructional contexts shows the total number of instances in nine different types of feedback moves. It can be seen that in seven of the categories the percentage of CLIL teachers using these options is lower than teachers in the other two contexts. In the options of summarizing a pupil's answer and giving prompts they reach a higher percentage than the mainstream teachers.

The lack of a high number of occurrences of some types of corrective feedback techniques found in the data on the CLIL classes could be due to several factors. It may be that some teachers are not consciously aware or knowledgeable of effective questioning and scaffolding techniques. The lack may also be a result of the teachers' beliefs in their role in the classroom. As stated previously, the CLIL teachers in this study saw their task as focusing mainly on teaching the content and not necessarily on language issues. Corrective feedback though is not only related to second language acquisition, but is an aspect of all educational contexts and can be applied to any interactional dialogic instances of instruction.

The study set out to analyse instances of corrective feedback related to language aspects of feedback, but inevitably in the CLIL classes there was an overlap in the description of overt feedback on language aspects and feedback on incorrect answers on content facts. In the didactics of second language teaching and for language teachers the opportunities for repair are considered to be part of the process of language acquisition, providing chances for practice. The overt repair of a linguistic error in an answer indicating knowledge of content facts can be considered from a non-linguistic point of view unnecessary and not in keeping with the didactics of teaching subject matter. This fundamental difference in the didactical approaches will provide us with one explanation for the fact that instances of corrective feedback leading to linguistic repair are fewer in CLIL classes than in English support and mainstream classes.

Two factors affecting the occurrence of feedback are the task type and the classroom management issues. The rapport between teachers and learners is an important aspect in the quality of teacher input and if the relationship is not sound and stable, then it seems

probable that teachers focus more on classroom management issues to the detriment of encouraging repair or pushed output.
The task type chosen by the teacher is a second salient factor and the classroom task can dictate the environment for interaction. If tasks require pupils to work individually on completion of a comprehension exercise, then this will result in fewer opportunities for oral output and consequently less need for teacher feedback. As the teachers were not informed of the specific purpose of the recordings, this may have been a factor in providing the variety of types of tasks occurring during the lessons. If teachers had been aware that the study was analyzing strategies conducive to language proficiency, the task types might have been focused on that aspect.

9.8 Summary

The three contexts reveal different patterns in the five areas of language which were the focus of this study. An analysis of the data on the classroom discourse shows that code switches are made by teachers from all three groups, but in various language areas. Mainstream teachers switch mainly to deal with morphosyntactical aspects, support teachers focus mainly on lexis and CLIL teachers in general switch to deal with content concepts. Teachers from all three groups tag the code switches in some way. The feedback options used by teachers vary depending on the context, with the English support teachers with a higher percentage of use than teachers in the other two contexts.

A final comment: individual teacher styles and idiosyncrasies have to be taken into account when we are drawing conclusions and giving explanations for the frequency of teachers' didactical strategies. Each classroom is a unique happening, and while there are predictable discourse turns taken in classroom discourse, and we can draw some conclusions about the relationship between the instructional context and the didactical strategies taken by the teachers, it is the individual teachers' behaviours that supply the characteristic pattern in their use of discourse strategies.

Chapter 10 The effect of teachers' strategies on learners' outcomes

10.1 Introduction

As mentioned in the introduction, this study is part of a larger investigation into the effectiveness of bilingual education in the Netherlands which includes measurements of pupils' progress in language proficiency. The current study was set up to measure the strategies teachers use to provide opportunities for immediate learner output during interaction in lessons, and although it was not the intention to directly establish a correlation between the strategies used in classroom discourse and long-term language development, this chapter will attempt to establish whether a causal relation can be identified, using data from this study and data on pupils who participated in the larger investigation. This chapter includes statistical analyses carried out by Xiaoyan Xu and is adapted from original work by Verspoor and Xu (2011), with permission. The chapter first presents the findings of the study on the pupils' language proficiency and then presents the teachers' use of strategies observed in lessons in the different schools. The two sets of analyses are set alongside each other to consider whether any relationship or link exists between them. The findings presented in this chapter are in line with the arguments put forward by de Bot et al. (2007) and Verspoor et al. (2011), who maintain that L2 development is a dynamic process, dependent on initial conditions such as previous exposure to a second language and internal resources such as aptitude and motivation. The authors argue that external resources such as the quality and quantity of input from various sources continually interact to drive the process. In another study, Verspoor et al. (2011) show that in addition to instructional context, scholastic aptitude and the amount of input, both in school and out of school show significant effects in proficiency gain. These variables need to be considered in any attempt to measure the effect of teachers' strategies. The fact that interacting variables play a role in language development suggests that it may be difficult to relate teachers' strategies directly to learners' outcome as the strategies are only one part of a dynamic classroom environment within a dynamic school context.

10.2 The study on pupils' language proficiency

The data on pupils' language proficiency was collected from learners in two instructional contexts: those in the bilingual streams and those following a mainstream English language programme. Five different schools participated with pupils from the first and third years of their secondary education. Table 10.1 gives a breakdown of the schools with pupils participating in the study in year 1, and shows the type of school attended. Four of the schools were regular state schools, while School 4 is a Christian school in a rural part of the Netherlands.

Table 10.1

Pupil participants in year 1

School	Type	Number of pupils in bilingual classes	Number of pupils in mainstream classes	Total
1	State school	26	20	46
2	States school	29	26	55
3	State school	28	58	86
4	Protestant school	26	27	53
5	State school	-	29	29
Total		109	160	269

The following table shows the same 5 schools participating in the study and the number of year 3 pupils from each school.

Table 10.2

Pupil participants in year 3

School	Type	Number of pupils in bilingual classes	Number of pupils in mainstream classes	Total
1	State school	21	16	37
2	State school	27	18	45
3	State school	26	50	76
4	Protestant school	27	31	58
5	State school	-	25	25
Total		101	140	241

Design and procedure of the study

Before they enter secondary education, most pupils in the Netherlands take a CITO test, a scholastic aptitude test. For the pupils participating in this study, their CITO scores were obtained as a variable in evaluating the results of the measurements of proficiency. Both groups of pupils were tracked throughout the academic year 2007-2008 and their proficiency was measured at three points during that year. At the beginning of the study pupils completed an extensive questionnaire on motivation and out-of-school contact with the English language.

Two tests were administered in order to measure language proficiency. The first was used to test receptive skills in comprehension of lexical items. Researchers used the "English as a Foreign Language Vocabulary test" (EFL Vocabulary test), developed by Meara (1992). The second test measured productive, written language skills, and pupils were asked to write a spontaneously produced text of about 150 words. The writing samples were holistically scored on language proficiency by a team of evaluators in a carefully controlled procedure (see Verspoor et al., forthcoming). The scores ranged from 0, indicating that more Dutch than English was produced, to a high 7. In the larger OTTO project, the writing and vocabulary scores are significantly related with $r=.65$ ($p<.01$) (Verspoor et al 2012), so a general English proficiency score was operationalized as the standardized score of the sum of these two standardized scores of writing and vocabulary.

Analysis

For each set of learner groups in different conditions (bilingual or mainstream) or levels (year 1 and year 3) a one-way between-groups analysis of variance (ANOVA) is conducted to determine differences into the four possible contributing factors of initial proficiency, out-of-school contact, motivation and CITO score, followed by a post hoc analysis with Bonferri adjustment. The level of statistical significance was set at 0.05. To compare the general English proficiency level of the groups at the end of the year a univariate analysis of covariance (ANCOVA) is used with final proficiency score as dependent variable and schools as a between-subject factor. The students' initial English level (first test scores), out-of-school contact, motivation and scholastic aptitude (CITO score) are included as covariates. As only full data sets that included both CITO scores and final proficiency scores were used, several original participants had to be excluded, leaving some rather small groups at some schools.

Bilingual pupils

The year 1 bilingual groups at schools 1, 2, 3 and 4 were first compared on initial proficiency, out-of-school contact with English, motivation and CITO scores. The ANOVA analysis showed that pupils at the four schools differed in initial proficiency, out-of-school contact and CITO score, but not on motivation. Post hoc analyses show that School 3 has a significantly higher score than Schools 2 and 4 ($p=< 0.05$) for initial English proficiency. School 4 has a significantly lower contact score than the other schools ($p=< 0.05$). There are no significant differences in motivation among the schools. School 2 has significantly lower CITO scores than the three other schools ($p=< 0.05$).

After controlling for the effects of initial English proficiency, CITO scores, out-of-school contact and motivation, students from School 1 performed significantly better than those from the other three schools, $F(3, 56)=5.60$, $P<.01$, $eta^2=.23$. There were no differences among the other schools. There is a strong relationship between the initial and final English proficiency, $F(1, 56)=52.92$, $P<.001$, $eta^2=.49$, but the other covariates do not contribute significantly to the final proficiency level. The proficiency scores of students at the end of year 1 are presented in Tables 10.3 to 10. 6.

Table 10.3

Mean final proficiency score per school in bilingual year 1

School	Mean score	Z	SD	N of pupils
1	1.21		0.6	12
2	0.20		1.0	14
3	0.95		0.7	18
4	0.34		0.6	20
Mean/Total	0.64		0.8	64

The year 3 bilingual groups at schools 1, 2, 3 and 4 were first compared with regard to initial proficiency, out-of-school contact, motivation and CITO scores. The ANOVA analysis showed that the pupils at the four schools differed in initial proficiency, out-of-school contact and motivation, but not in CITO score. Post hoc analyses show that School 4 has a significantly lower initial proficiency score than Schools 1 and 3, and a

significantly lower score in both out-of-school contact and motivation than the three other schools. There are no significant differences in CITO scores among the schools.

Table10.4
Mean final proficiency scores per school in bilingual year 3

School	Mean score	Z	SD	N
1	0.78		0.52	16
2	0.5		0.34	15
3	1.4		0.34	5
4	0.14		0.87	20
Total	0.53		0.72	56

After controlling for the effects of initial English proficiency, out-of-school contact, motivation and CITO score, pupils from the four schools did not perform significantly different from each other $F(3, 48)=2.00$, $P=.13$, $eta^2=.11$. But it should be noted that the number of students at School 3 is rather small and the standard deviation of School 4 is very large compared to the mean, which may have led to the non-significant difference. Among the covariates, there is a relatively strong relationship between the initial and final English proficiency level, $F(1, 48)=7.33$, $P<.01$, $eta^2=.13$, and the covariate of out-of-school contact contributes significantly to the final proficiency level $F(1, 48)=5.18$, $P<.05$, $eta^2=.10$

Mainstream pupils

The year 1 mainstream groups at all schools were compared with regard to initial proficiency, out-of-school contact, motivation and CITO scores. The ANOVA analysis showed that the five schools differed in initial proficiency, out-of-school contact and CITO score, but not in motivation. Post hoc analyses show that for initial English proficiency, School 2 has a significantly lower score than Schools 1, 3 and 5, but not lower than School 4. On out-of-school contact and motivation no significant differences among the schools were found. On the CITO scores, School 1 scores significantly higher than the other four schools and School 2 scores significantly lower than the other four schools. There are no differences between Schools 3 and 5.

Table 10.5

Mean final proficiency scores per school mainstream year 1

	Mean score	Z	SD	N
School 1	0.28		0.75	15
School 2	-0.88		0.57	7
School 3	-0.17		0.84	15
School 4	-1.24		0.44	17
School 5	-0.34		0.64	23
Total	-0.43		0.84	77

After controlling for the effects of initial English proficiency, CITO score, out-of-school contact and motivation, there is a strong effect of school F(4, 68)=7.93, P<.001, eta2=.32, among which pupils from School 1 performed significantly better than those from Schools 4 and 5, and students from School 3 performed significantly better than those from School 4. There is also a strong relationship between the initial and final English proficiency, F(1, 68)=22.54, P<.001, eta2=.25, but the other covariates do not contribute significantly to the final proficiency level.

The year 3 mainstream groups at Schools 1, 2, 3, 4 and 5 were first compared with regard to initial proficiency, out-of-school contact, motivation and CITO scores. As there were no CITO scores available from School 5, the CITO score analysis was run separately for Schools 1- 4. The ANOVA analysis showed that the five schools differed in initial proficiency, out-of-school contact and CITO score, and also differed in motivation at the p=< 0.1 level. Post hoc analyses show that for initial English proficiency, School 4 has a significantly lower score than Schools 1, 3 and 5, and significantly lower than School 2 at the p = <0.1 level. On out-of- school contact School 4 scores lower than the other schools, but only between Schools 4 and 5 is this difference significant. There are no significant differences among the schools with regard to motivation. As far as CITO scores are concerned, School 1 has significantly higher scores than Schools 2 and 4.

Table 10.6

Mean final proficiency scores per school mainstream year 3

	Mean score	Z	SD	N
School 1	0.20		0.57	15
School 2	-1.44		0.9	4
School 3	-0.31		0.77	35
School 4	-1.24		0.73	23
Total	-0.55		0.91	77

After controlling for the effects of initial English proficiency, CITO score, out-of-school contact and motivation, there is a strong effect of school F(3, 69)=7.80, P<.001, eta2=.25, among which students from School 1 performed significantly better than those from Schools 2 and 4. Moreover, students from School 3 performed significantly better than those from School 2. There is a relatively strong relationship between the initial and final English proficiency levels, F(1, 69)=17.69, P<.001, eta2=.21, and among the other covariates, motivation contributes significantly to the final proficiency level, F(1, 69)=7.48, P<.01, eta2=.10.

Summary of the effectiveness study

Even though there were rather substantial differences among final scores, few of these differences proved to be significant once variables such as initial proficiency level, scholastic ability, out-of-school contact with English and motivation were taken into consideration. Of the covariates, the initial proficiency score had a significant effect on all the final scores. In addition, in the year 3 bilingual group the out-of-school contact had

a significant effect on attained fluency, and in the year 3 mainstream group the level of motivation had a significant effect on attained fluency.

One reason for some of the non-significant differences can be attributed to the fact that in some groups the number of participants was rather low or the standard deviations were rather high. In the current analyses the CITO scores were not found to have an effect on attained fluency, whereas in the larger OTTO study on the same students, but where groups were not split at the school level, the effect of CITO score was indeed significant (Verspoor et al. 2011) and should therefore still be considered a possible factor.

For the bilingual groups in year 1, School 1 performed significantly better than the other groups. The fact that it scored higher than School 3, which actually started out with higher initial proficiency scores, cannot be explained by the other investigated factors. School 2 scored rather low, which may be attributed to lower initial proficiency scores in combination with lower CITO scores. School 4 also scored lower but this is not surprising because of the conditions in which it functions. The school is a Christian school in a rural area of the Netherlands, and for religious reasons pupils are not exposed to modern media to the same extent as learners from the other schools. When they enter secondary school, their English proficiency is a beginner level. For the bilingual groups in year 3 there were no significant differences in performance, probably because of the high standard deviation of School 4, which scored substantially lower than the other groups. Again, the fact that School 4 scored lower is not surprising because of the special circumstances.

For the mainstream groups in year 1, School 1 outperformed Schools 4 and 5, and School 3 outperformed School 4. These differences may be attributed to the fact that on average mainstream learners at School 1 have higher CITO scores, even though in the current analyses this seems not to play an influential role. School 3 had a higher initial proficiency. For the mainstream groups in year 3, School 1 performed significantly better than Schools 2 and 4. Moreover, pupils from School 3 performed significantly better than those from School 2. These differences may be attributed to lower initial proficiency levels and differences in CITO scores which are not shown in the current analyses.

The fact that School 1 performs so well in both years and both instructional contexts is more difficult to explain. It is located within the same general area as School 3, which also performs well, and actually had higher initial scores in year 1. It seems there are no aspects that clearly suggest why School 1 should outperform the other schools. The analyses show some differences in outcomes among the groups of learners, but these may be linked to factors other than instruction, namely initial proficiency, out-of-school contact, motivation and scholastic aptitude

10.3 Teachers' strategies

In the current study, video tapes of the teachers at all the schools participating in the study were made of each instructional context; bilingual, English support and mainstream. As explained in chapter 4, not all subject lessons are represented in the samples, and some teachers provided only one video tape and others two. The samples cannot be directly compared with each other and the statistical analyses are therefore subject to certain limitations.

The samples provide data on lessons representative of the types of strategies teachers employ and can be used for a qualitative analysis of classroom discourse. Each lesson was analysed for various aspects pertaining to the teacher: a holistic score for didactic competences, a score for language proficiency based on the CEFR levels, a rating for the use of Dutch and English in classroom discourse and a rating on the number and types of strategies used to promote language acquisition.

The Observation Protocol used in the current study included 27 indicators, some of which are directly related to teachers' strategies in providing opportunities for language output and can be assumed to be more conducive to second language development than others. For example, a recast with a request for a repair provides opportunities for language use, and divergent questions will usually require the learner to give more than just a one-word response. An initial analysis included all 27 strategies and with a reliability level of .73, the 27 indicators were summed up and compared among the five schools.

Table 10.*7*

Average number of strategies per lesson per school

School	No. of lessons	Mean number of strategies	SD
1	33	40.33	31.49
2	20	43.00	28.23
3	13	58.54	31.2
4	26	47.12	36.1
5	2	83.00	8.5
Total	94	46.20	32.34

An ANOVA analysis based on the combinations of the 27 indicators suggests there is no significant difference among the schools. However, it is to be noted that School 5, which is a control school, with a mainstream class in year 1 and also in year 3, seems to have a much higher score than the other four schools, but with only 2 lessons observed.

The indicators selected for the OP for this study were selected to include various aspects of language use, initiation of discourse and feedback strategies. Eleven of the twenty-seven indicators were selected on the basis of their assessed effectiveness in providing opportunities conducive to language learning. The selected strategies were as follows:

1 Modifies and expands own spoken syntax in L2
2 Uses paralinguistic features to support comprehension
3 Asks divergent questions
4 Self repeats in L2
5 Uses clarification checks in L2
6 Supports comprehension with visuals and diagrams
7 Explicitly models answer
8 Uses clarification requests, giving opportunity for pushed output
9 Uses prompts
10 Uses procedural questions in L2
11 Confirms answer with a repeat

The reliability level of these eleven items is .51, which is relatively low, but considered sufficient to conduct the analysis.

Table 10.8

Average of 11 strategies per class per school in year 1

School	No. of lessons	Mean number of strategies	SD
1	16	28.81	17.98
2	15	28.87	17.54
3	6	32.63	17.54
4	17	28.41	22.30
5	1	23.00	-
Total	57	29.14	19.25

The ANOVA analysis using the total score of the 11 items as the dependent variable and the school (observations on Year 1 students only) as the independent factor suggests that there is no significant difference among the teachers' use of strategies at these schools. It is to be noted, however, that only one observation from School 5 was available.

Table 10.9

Average of 11 strategies per teacher per school in year 3

School	No, of lessons	Mean number of strategies	SD
1	17	16.59	17.15
2	5	12.20	10.18
3	5	31.40	23.59
4	9	24.44	15.17
5	1	24.00	-
Total	37	20.11	17.10

The ANOVA with the total score of the 11 items as the dependent variable and school (only observations on Year 3 students) as the independent factor suggest that there is no significant difference despite a low 12.2 for School 2. Here, too, there is only one observation from School 5.

The current study looked at different groups of teachers in the three contexts of subject lessons (CLIL lessons), English support lessons to pupils in bilingual streams and mainstream English lessons, and in years 1 and 3. The same types of analyses, both with 27 and with 11 strategies, were run on the CLIL and English support teachers that taught the groups of pupils from the bilingual schools. Tables 10.10 to 10.13 below show the summaries of the 11 strategies, with the average number of specific strategies used by the CLIL teachers in one column and that of the English support teachers in the second one. However, none of the results of the statistical analyses for 11 or 27 strategies showed significant differences.

Table10.10

Bilingual year 1

	School 1		School 2		School 3		School 4	
	CL	Eng	CL	Eng	CL	Eng	CL	Eng
1	0.9	3	2.6	5.7	0.8		2.2	6
2	7.8	5	7.4	3.0	2.0		5.0	11
3	4.4	9	4.9	2.7	12.3		5.1	9
4	0.9	0	3.0	3.3	1.8		2.5	5.5
5	0.3	0	0.2	3.3	0.3		0.3	0.5
6	4.1	0	2.0	0.0	1.2		2.4	1
7	0.2	0	0.2	0.7	0.0		0.1	3
8	0.5	0	0.9	0.0	0.2		0.7	5.5
9	0.6	0	1.0	1.3	1.2		1.0	3
10	5.3	7	6.6	3.3	13.8		3.0	8.5
11	1.6	15	3.2	2.3	2.7		1.8	7.5
	2.6	3.9	3.2	2.6	3.6		2.4	6.0

Table 10.11

Bilingual year 3

	School 1		School 2		School 3		School 4	
	CL	Eng	CL	Eng	CL	Eng	CL	Eng
1	0.8	5.3	0.5	0.5	1.8	0.0	1.4	2.0
2	1.1	1.0	2.0	2.0	0.8	0.0	2.0	4.0
3	1.3	9.0	0.5	4.5	4.8	23.0	9.1	15.0
4	0.4	1.5	0.5	1.0	2.0	3.0	1.4	1.0
5	0.1	0.3	0.0	1.0	0.0	0.0	0.0	0.0
6	1.0	0.3	0.0	0.0	1.3	0.0	2.1	0.0
7	0.0	0.0	0.0	0.5	0.3	0.0	0.1	0.0
8	0.2	0.5	0.0	1.0	0.5	1.0	0.7	1.0
9	0.6	1.0	0.0	1.0	0.3	0.0	0.3	0.0
10	3.4	13.8	0.5	7.0	8.8	35.0	1.6	10.0
11	1.3	4.3	1.0	5.5	3.0	2.0	3.3	2.0
	0.9	3.3	0.5	2.2	2.1	5.8	2.0	3.2

Table 10.12

Mainstream Year 1					
	1	2	3	4	5
1	3.0	0	1		1
2	11.0	0	1		1
3	2.7	0	8		4
4	3.3	0	1		1
5	0.7	1	5		1
6	0.0	0	3		2
7	0.3	0	0		1
8	0.3	2	1		0
9	1.3	0	2		2
10	7.7	0	0		1
11	7.7	1	19		3
Average	3.5	0.4	3.7		1.5

Table 10.13

	Mainstream year 3				
l	1	2	3	4	5
1	0	0		0	1
2	0	0		4	0
3	7	0		8	7
4	2	0		0	4
5	1	0		0	0
6	0	0		1	0
7	0	0		1	1
8	0	0		3	0
9	3	0		2	0
10	0	0		0	0
11	1	5		8	7
Average	1.3	0.5		2.5	1.8

To summarize, the analyses relating to teacher strategies show no significant differences among the schools, regardless of whether we take all the indicators or only a selected number of them, As previously stated this may attributable to the fact that it cannot be ascertained that the averages shown reflect all strategies that the learners have been exposed to on a regular basis. As indicated in the previous section, no significant differences emerged in the number of strategies used per group of teachers, even though there were differences in the average number of strategies used per group. It was therefore not possible to demonstrate any definite link.

10.4 Conclusion

The current study shows that there are differences between instructional contexts and schools with respect to the number of strategies used in providing opportunities for language development, but none of these is statistically different. Similarly, differences in pupils' language proficiency have been demonstrated in the data collected in the larger OTTO project, but only in one case is this difference statistically significant. But no causal relationship between the two sets of data has been shown to exist.

There may be several reasons for this. One is that not all the teachers in one school will necessarily display similar teaching styles or use the same types of didactic strategies. Pupils are exposed to different methodologies, and it is problematic to identify any individual teacher's didactic style as influential in language development, particularly in the case of the CLIL contexts. The additional factors of out-of-school contact with the initial proficiency level and motivation will all play their part in influencing the pupils' language outcome. In addition, the numbers of pupils and teachers in this study are small, in particular for the mainstream schools, and the study presented in this dissertation was not set up to test the relationship between teachers' strategy use and pupils' proficiency.

A final key point to make is that learning cannot be attributed to one factor, and teachers' discourse is just one of many aspects that support and influence this dynamic process. Learning is an interaction of factors and dependent on the instructional context and the learner. Any search for the definitive answer to the question of what influences learning the most has to take this complexity into account to the fullest possible extent.

Chapter 11 Conclusion

The study forms part of a large-scale project on the effectiveness of bilingual education in the Netherlands. The study sets out to answer two questions on teachers' classroom discourse during lessons to the pupils participating in the project and observed in three instructional contexts: CLIL, English support and Mainstream classes. The first question is concerned with the types and frequency of didactical and linguistic strategies used by teachers in providing opportunities for second language development. The second question investigates whether the number of occurrences of these strategies is context dependent, with reference to the three instructional contexts. Additionally, the study examines whether a causal relationship between the didactical strategies in discourse and pupils' language proficiency can be shown.

In order to answer the first question on the types of strategies used by teachers, an Observation Protocol (OP) was designed specifically for this study. This provided data on the types and frequency of strategies found in the recorded lessons conducted by teachers in the three contexts. The indicators on the OP were pre-selected using literature on classroom-based research and on second language acquisition. Lessons from three instructional contexts were observed and analysed using the OP, thus providing data on strategies considered to be conducive to second language development. The OP also included additional qualitative data, with holistic scores assigned to teachers based on pedagogical and didactical competences, and a language proficiency score based on the CEFR criteria. A teacher questionnaire was given to the CLIL teachers and provided information on the teachers' qualifications and their attitudes to language learning within a content-based programme.

In order to answer the second question on context-dependency, comparisons were made of the number of strategies observed in the three contexts. While context-dependent differences were observed, no evidence of significant statistical differences emerged. A qualitative analysis nevertheless reveals differences in the three contexts relevant to five areas of language.

The first and second areas investigated in the study are the use of L1 and L2. The first area was code use during procedural language and in presentation of content. The second area was code use during interactional and dialogic talk with learners and when giving feedback on learners' utterances.

When the use of L1 and L2 during procedural language and presentation of content is compared, the data indicates that the English support teachers have the highest level of L2 in their classroom discourse, with the CLIL teachers showing a high but not consistent level. In the group of CLIL teachers not all of them achieved a 4 rating indicating 100% use of L2. When the range of ratings is expanded to include lessons with scores of 3 and 4, indicating a level of L2 use in more than 80% of the discourse, then the six subject areas of Art, Drama, Geography, Mathematics, Physics and Religious Education reveal the highest use of L2. Code switching in the English support classes shows a different pattern to the CLIL lessons. Twelve of the fourteen support lessons revealed 100% use of L2 use in procedural discourse and in presentation of content. Five of the eight teachers are native speakers of English, although the data shows no direct relationship between the

native-speaker variable and the use of L2. One of the native speakers uses some code switches in her lessons and two of the three non-native speakers maintain a 100% rate of L2 use. The English mainstream classes show a different pattern than the other two contexts. Of the eleven classes one was given a rating of 4 indicating 100% use of L2. One was given a low rating of 1 for L2 use in presentation of content and nine were given ratings of 3, indicating more than 80% use of L2.

When the use of L1 and L2 during interactional dialogue is investigated the English support teachers show a similar use to that in presentation of content. The CLIL teachers show a high level of L2 use but use more L1 in interactional dialogue than they do in procedural language and presentation of content. Analysis of the instances of the use of L1 and L2 showed that in interactional language with pupils the CLIL teachers use the largest number of code switches when introducing and checking subject-specific lexis. Examples found in the data do not always occur as a consequence of a pupil request for assistance but are often teacher-initiated, following an expression of concern about learners' comprehension. Teachers seem to anticipate where lexical items may be problematic and provide a translation and a code switch in mid-utterance to include an L1 translation of a word or a phrase. The support teachers use occasional code switches during interactional dialogue. The group of mainstream teachers shows a more diverse approach to the use of L1 and L2 in interactional discourse. Teachers in this group use more code switches in interactional discourse than teachers in the other two contexts, particularly when giving explanations on language form and aspects of morphosyntax. At times, they also overtly tag the code switches to indicate to learners that they are concerned to ensure that the linguistic rule is understood, thereby justifying explanations given in L1. In this group of teachers no direct correlation between the use of codes and the holistic score is found. Teachers in the mainstream context demonstrate more idiosyncratic use of code than teachers in the other two contexts, generally having a less systematic approach to the use of the L2 in classroom discourse

In all three contexts, a common strategy for a switch from L2 to L1 involves the use of a marker or tag of some kind, alerting pupils to the upcoming switch. These markers are generally statements regarding the anticipated comprehension difficulties, with an emphasis on the importance of the content. In the CLIL classes, the policy of dual code use in the first three months of the programme may have led to an acceptance by teachers and pupils that switching is an integral part of classroom practice, which may explain its use by some teachers. In most of the year 1 CLIL classes, overt references were made to this policy and may have resulted in code switching, even when no explicit indications of miscomprehension occurred.

The third area of language investigated is the use of modifications made by teachers to their own utterances in order to make input comprehensible to learners. The English support teachers employ more modifications and elaborations than teachers in the other two contexts. The majority of the modifications relate to syntactical and lexical items. The results of the analyses show that English mainstream teachers have the lowest number of modifications in their discourse. This may reflect the teachers' pre-selection of relevant lexis and an awareness of the level of language appropriate to the age level and the language proficiency of the pupils, thereby eliminating the need to modify the discourse. In the group of CLIL teachers nearly 40% used no observable or overt modifications or elaborations in their discourse. Of the CLIL teachers who did demonstrate this strategy, the number was low, ranging from 1 to 9 occurrences per lesson. The highest number of observable modifications occurred in a highly interactive

CLIL lesson with a native-speaker teacher who had long stretches of discourse in presenting content.

The fourth aspect the study considers is the use of convergent, divergent and procedural question forms in eliciting pupil output. In the data on the CLIL classes, PE and Art classes show a lower number of convergent questions, whilst the Geography lessons reveal the highest use of convergent questions. The most common question type in the CLIL lessons is that of the convergent questions checking comprehension of content knowledge. In some CLIL classes convergent questions checking meaning of lexis specific to the subject are observed, but are fewer. The data reveals that the support teachers pose a larger number of divergent questions than teachers in the other two contexts, thus giving pupils opportunities for more extended responses. As these opportunities are not always taken by the pupils, an open question does not automatically result in an expanded utterance. A few extended IRF sequences are observed in Religion, History and Geography classes but are not a general characteristic of classroom discourse in the group of CLIL lessons.

The fifth area investigated relates to the strategies teachers use in giving corrective feedback to learners' output. The CLIL teachers show the lowest number of such actions while the two groups of English teachers reveal a similar number of occurrences, but in different categories of feedback. The strategies used by the highest percentage of CLIL teachers are those of modifications to the pupils' answers and recasts. In both, teachers provide the additional input and draw attention to learners' errors but in most cases fail to request a repair or allow pupils the time to adapt and adjust their utterances to meet the target language model. The feedback strategy observed in the highest percentage of English support lessons is also that of modifications to pupils' answers, with a higher percentage of the classes showing the use of this strategy than in those of the group of CLIL teachers. Recasts in the support classes are mostly lexical recasts, which occur more frequently than those dealing with phonology or morphosyntax. The English support teachers provide more opportunities for repair than the CLIL teachers in the area of morphology. The strategy observed in the highest percentage of mainstream lessons is the use of metalinguistic comment on form of language. In contrast to the mainstream teachers' use of metalinguistic comment, this is the least common option in the English support classes. One strategy not found in the data on the mainstream classes and which is found in the discourse of CLIL and support teachers is that of summarising the pupils' answers.

The additional aspect examined by this study, using the data on classroom discourse collected in this study and the data on pupils' performance collected in the larger OTTO project, is whether a causal relationship can be established between the quality of the teachers' discourse and the pupils' performance scores attained in language proficiency tests. It was concluded that due to the many variables involved in learning and teaching it was not possible to ascertain a direct causal relationship.

What this study has provided is a description of classroom discourse in three instructional contexts. It has shown the linguistic environments in which code switching occurs, has given counts for occurrences of certain didactical strategies considered conducive to SLA, has provided information on the teachers' language proficiency levels and has provided holistic scores of the teachers' competences. The study has also shown that there are differences in the number of occurrences of didactical and linguistic strategies in the teachers' classroom discourse in the three instructional contexts, has detailed how

these differences are manifested and has presented hypotheses on the reasons for their occurrence.

This study emanates from a project on bilingual education in the Netherlands and maintains a particular focus on the strategies employed by CLIL teachers during their classroom discourse. The results and conclusions presented in this study are relevant to the training of CLIL teachers, both pre-service and in-service, particularly in the didactics of the teaching of content through language and the learning of language through content. The study shows that the CLIL teachers in general use fewer didactical strategies relevant to language development than the English support teachers. Current thinking on CLIL methodology emphasizes the dual role of its didactics of language and content. If this methodology is to be comprehensively applied to the bilingual context and is to reach its potential as a different type of didactical approach in the combination of language and content, then strategies which assist and scaffold language acquisition need to be rigorously put into practice.

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Appendix I

OTTO research **Teacher observation form**

This form is for observations of EFL and CLIL classes.

Teacher's name:	Analysed by:
Date of lesson:	Date of analysis:
School:	
Subject and year:	

Part 1

Activity	
Class organisation	
Topic	
Skills focus	
Grammar and language focus (if applicable)	
Task type	

Part 2

Ratings for:

Teachers' Language Proficiency level	
Holistic score	

Code use in classroom discourse

	Rating	Examples
1. L1 in classroom routines, instructions and presenting content		
2. L2 in classroom routines, instructions and presenting content		
3. L1 in interactional dialogue		
4. L2 in interactional dialogue		

Part 3

Presenting content

	Frequency	Examples
5. Modifies, elaborates and expands own spoken syntax in L2		
6. Paralinguistic features to support comprehension		
7. Checking comprehension while presenting content in L2 a. Convergent questions		
b. Divergent questions		
8. Self repeats in L2		
9. Clarification checks in L2		
10. Supports comprehension with visuals and diagrams		

Giving feedback in interactional language

	Frequency	Examples
11. Explicitly models the correct answer/example		
12. Queries answer in L2		
13. L2 to give explicit metalinguistic comment		
14. L1 to give explicit metalinguistic comment		
15. Recasts with the correct answer with no explicit attention to form		
16. Clarification requests – provides opportunity for pushed output		

17. Repeats answer with rising intonation (indicating an incorrect answer)		
18. Elicits answers and responses from the group		
19. Summarises a pupil's answer		
20. Modifies and adds to pupil's answer in L2		
21. Uses prompts in L2		
22. Asks (in L2) another pupil to correct error		
23. Acknowledges errors in form and/or meaning (if not covered in 11 – 22		
24. No response to errors in form and/or meaning		
25. Confirms answer with a repeat		
26. Checks comprehension with L1		
27. Procedural questions		

Appendix II

Questionnaire for TTO teachers

Name of teacher (confidential use only)
School
Subject
Year of class

Part 1 Information about the teacher
Please put an X in the appropriate box.

1. How many years of teaching experience do you have?

Less than 5	
5 – 10	
10 – 20	
More	

2.How many years experience as a TTO teacher do you have?

1	
2	
3	
4	
5	
6.	

3. Level of English:

Native speaker	
Cambridge Proficiency	
Cambridge Advanced	
Qualified English Teacher	
Other relevant qualifications in English	
None of the above	

4. Level of English:

	YES	NO
4a. Did you ask to teach in the TTO section of your school?		
4b. Were you asked by the school management to teach in TTO?		

5.

	YES	NO
Do you teach your subject in non-TTO classes?		
If so, do both groups score at the same level?		

6.

	YES	NO
Have you followed a CLIL training course?		

Part 2 Teachers' beliefs
For the following statements put an X in the column corresponding to your degree of agreement.

Key
SA = Strongly agree
A = Agree
D = Disagree
SD = Strongly disagree

	SA	A	D	SD
1. The TTO teacher should speak only English during the lesson				
2. The TTO teacher should speak English to pupils outside class.				
3. Pupils in TTO classes should be required to speak only English to the teacher.				
4. Pupils in TTO classes should be required to speak English to each other during these classes.				
5. It is important to use materials developed specifically for TTO pupils.				
6. The most important aim of the TTO classes is for pupils to acquire a high level of proficiency in English				
7. The role of the TTO teacher is primarily as a teacher of content.				
8. The TTO teacher should give a separate mark for English use in pupils' written assignments				

9. It is more important for pupils to focus on talking in English, even if the language is not 100% accurate.				
10. Pupils need to be proficient in reading and listening skills before they can produce language.				
11. Grammar rules should be explicitly taught.				
12. Vocabulary words are the most important element in learning the language.				

Part 3 Input from the teacher (put an X in the relevant column)

KEY: Y = Yes U = Usually S = Sometimes N = No

	Y	U	S	N
Do you think you have the English knowledge relevant to your subject?				
Before the lesson, do you examine the lesson material for possible language difficulties for pupils?				
Do you need to adapt materials to make the language level easier?				
Do you use only English in class?				
Do you use Dutch to correct grammar errors?				
Do you use English to correct grammar errors?				
Do you use Dutch to explain vocabulary?				
Do you use English to explain vocabulary?				
Do you use English in class to give task instructions?				
Do you demand that pupils always speak English in class to you?				
Do you demand that pupils always speak English to each other in class?				
Do you ask pupils to write all lesson assignments in English?				
Do you allow use of Dutch for discussion of lesson material?				
Do you give bilingual vocabulary lists for content words?				
Do you feel confident in recognising all grammar errors pupils make?				
Do you ever use a dictionary in class for your own language use?				
Do you speak in English outside the lessons with your TTO pupils?				
Do you use translation as a strategy in class?				

Do you adapt your own language level in sentence structure to accommodate pupils' proficiency level?				
Do you adapt your speed of speaking to accommodate the pupils' proficiency level?				
Do you adapt your own vocabulary level to accommodate the pupils' proficiency level?				
Do you give a separate mark for use of English in class assignments?				

Curriculm Vitae

Jenny Schuitemaker-King (1947) was born in Beckenham, England. She trained as a teacher, gaining her diploma from the Institute of Education, University of London. She then went on to study the teaching of English as a second language and received the TESOL diploma from the Royal Society of Arts. She gained her Masters in Applied Linguistics from the University of Surrey, England. Jenny has taught at schools in London, England and at international schools in Germany and the Netherlands. She is now involved in teacher training in the Netherlands and has taught a variety of courses in initial teacher education, including courses on didactics in EFL and CLIL at Fontys University of Applied Sciences in Sittard, the Netherlands. She also gives in-service workshops on CLIL methodology to teachers and staff at Dutch International Schools and at Dutch bilingual schools.